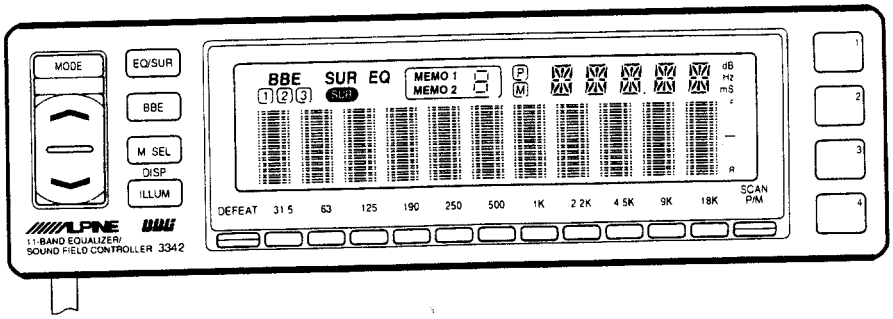
ALPINE®
SERVICE MANUAL

11 Band Electrolytic Equalizer / Sound Field Controller

– REVISED –

- **Serial Numbers after** **No. 30816301 (For North American Model)**
  No. 40120101 (For General Foreign Model)
- **The model described in this manual is developed from Model 3342. For information that is not mentioned in this service manual, refer to the Service Manual 3342 (68P52021 W01).**



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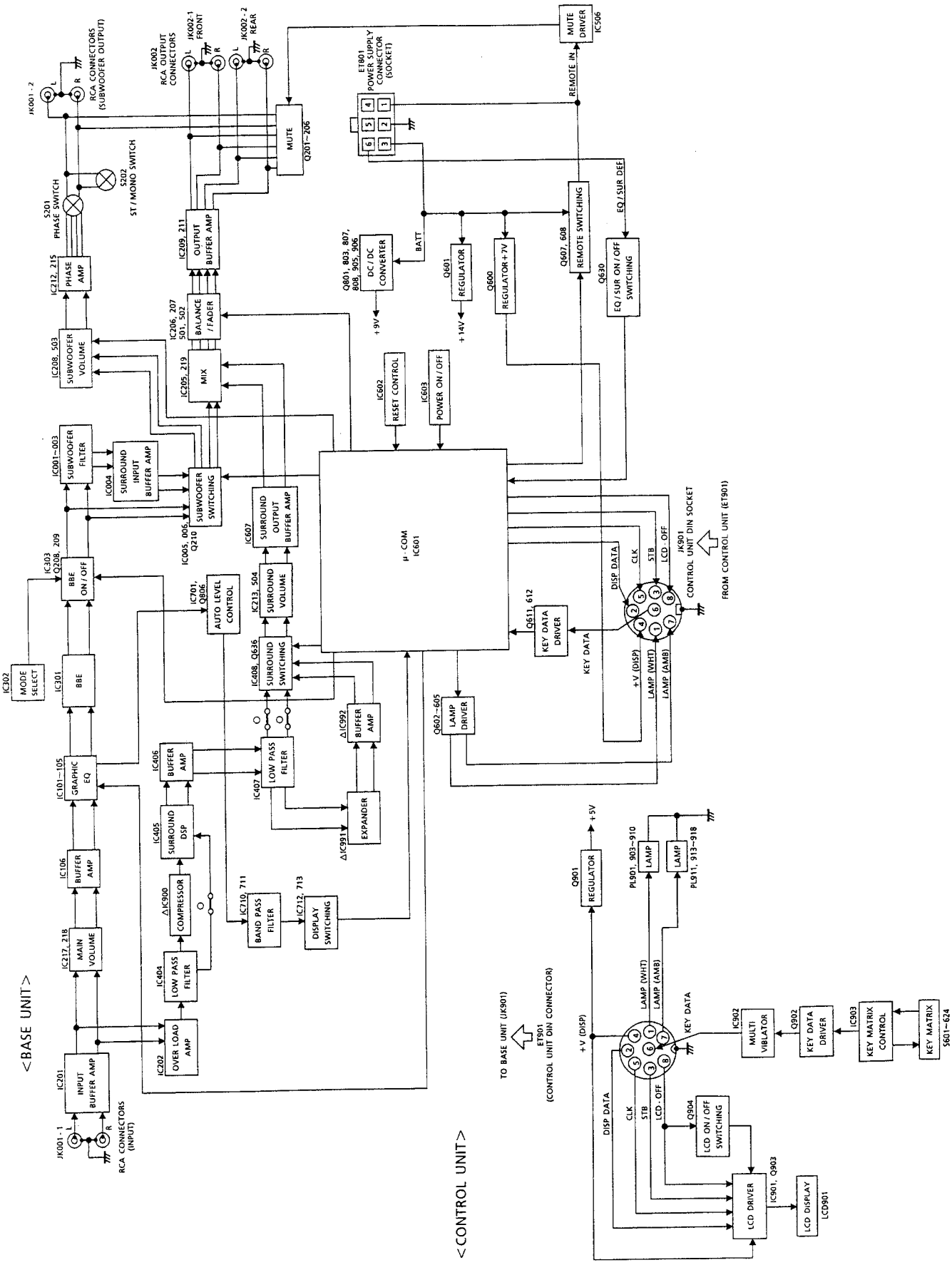
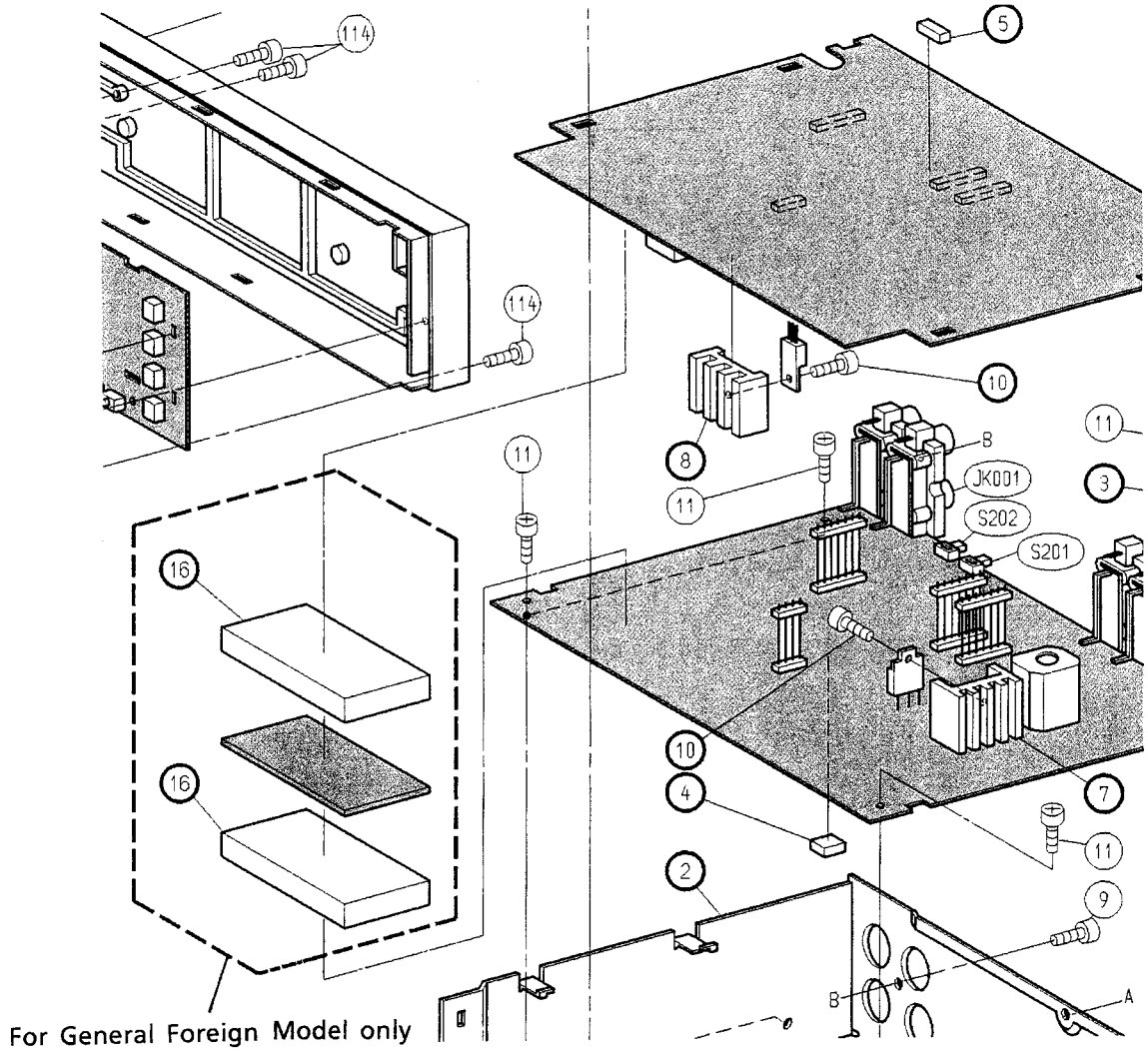
Additional Schematic Diagram inserted.

Block Diagram



Exploded View (Cabinet)

Note : For the parts not mentioned, refer to the Service Manual for 3342 (68P52021W01).



Cabinet Assembly Parts List

Note : For the parts not mentioned, refer to the Service Manual for 3342 (68P52021W01).

Symbol No.	Index	Part No.	Description
9		03E20972S01	Screw, Bind (M3×10)

Parts Layout on P.C.Board and Wiring Diagram

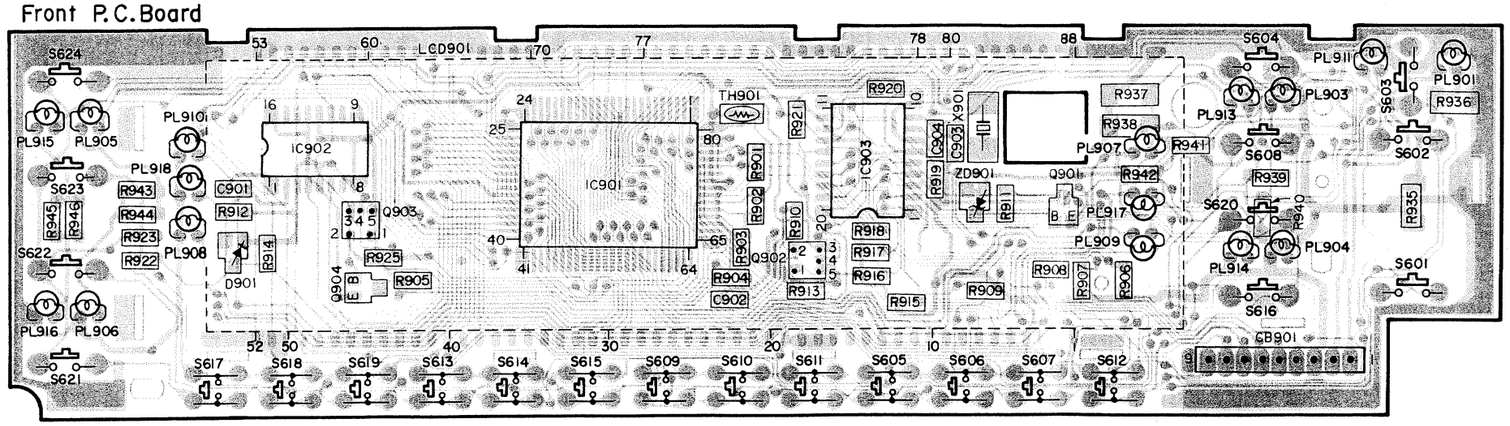
All P.C.Boards viewed from soldered side.

Audio / Front Section

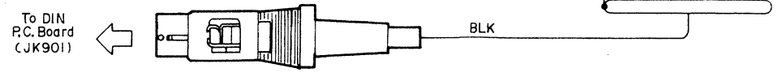
Orange Pattern : Component Side Pattern
Blue Pattern : Foil Side Pattern

<Control Unit>

Front P.C.Board

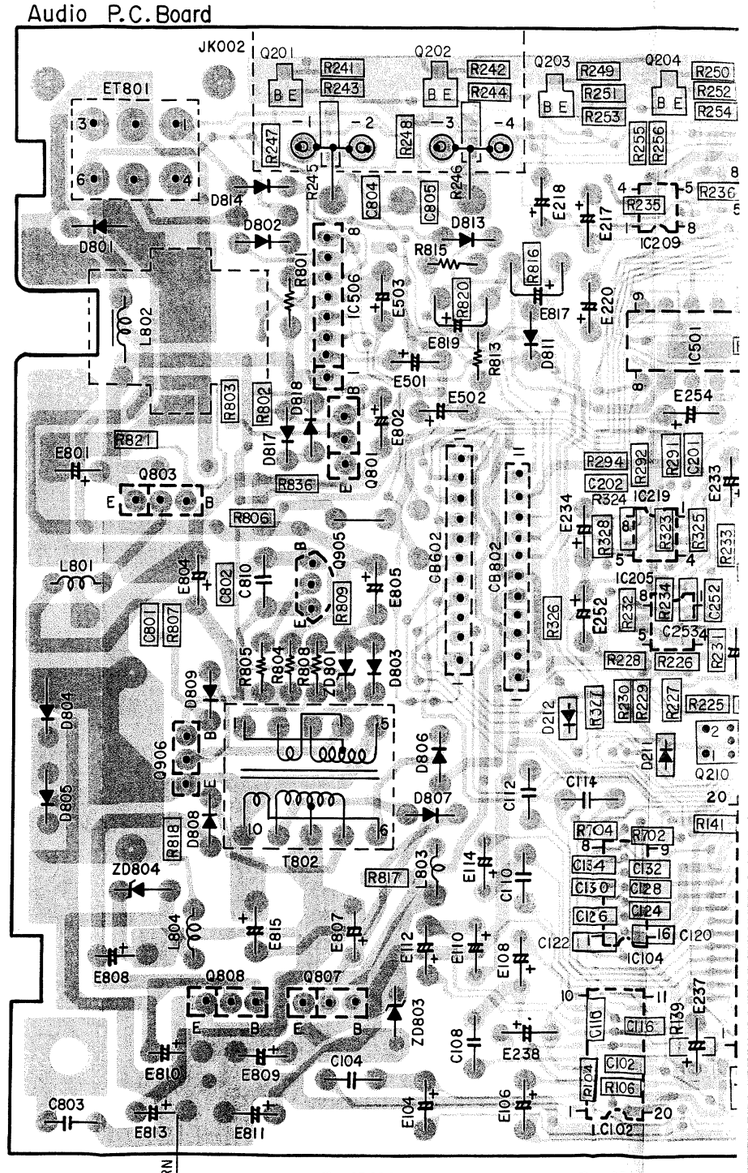


Control Unit DIN Connector
(ET901)



<Base Unit>

Audio P.C.Board



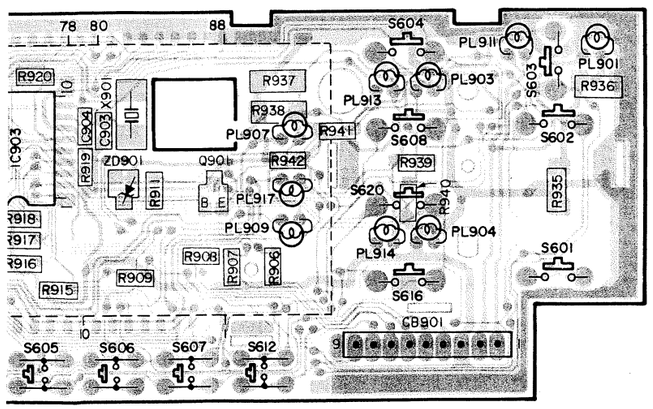
A | B | C | D | E | F | G | H

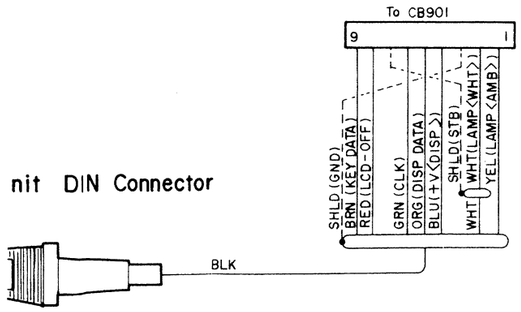
—5— —6—

am All P.C.Boards viewed from soldered side.

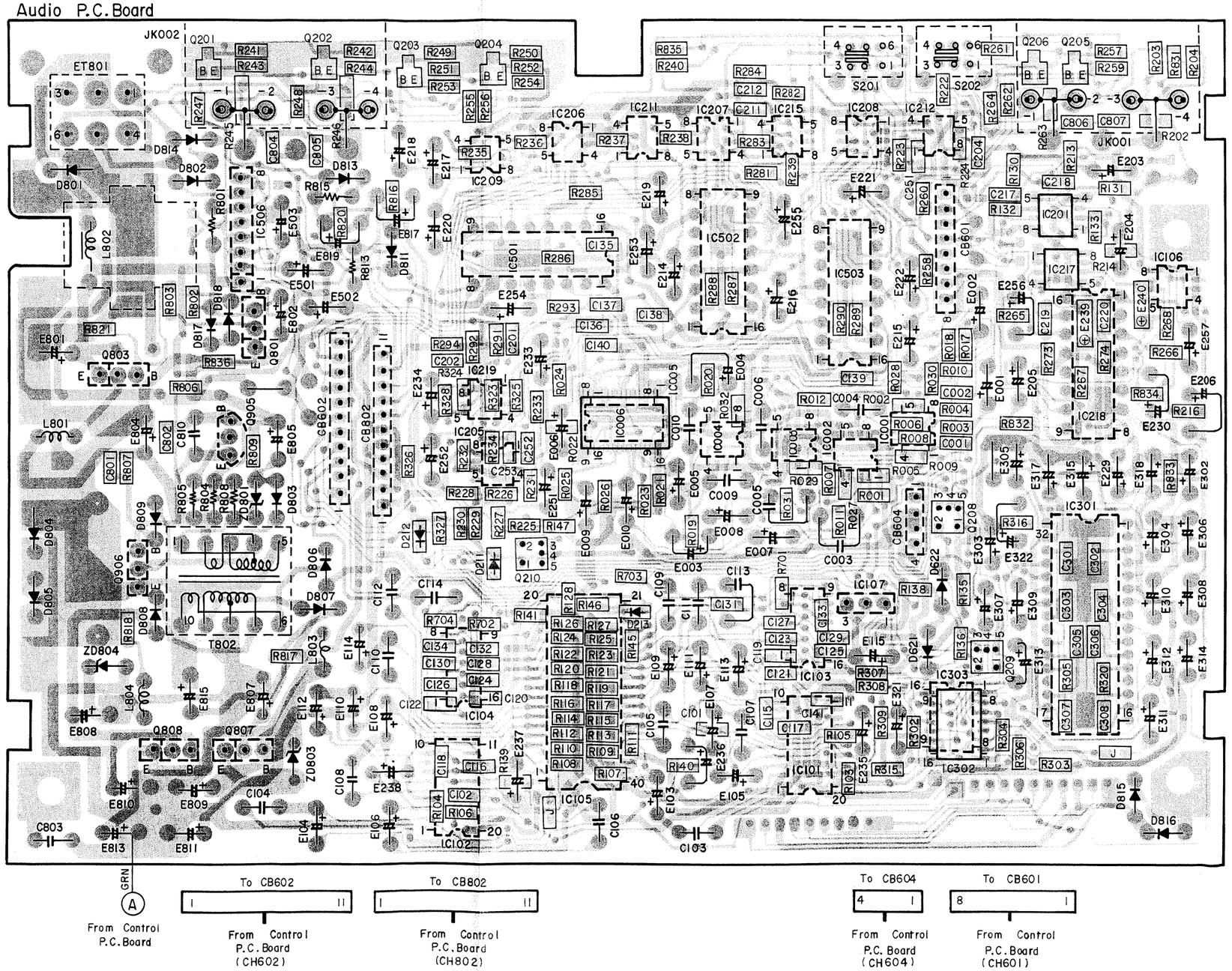
<Base Unit>

Audio P.C.Board





nit DIN Connector



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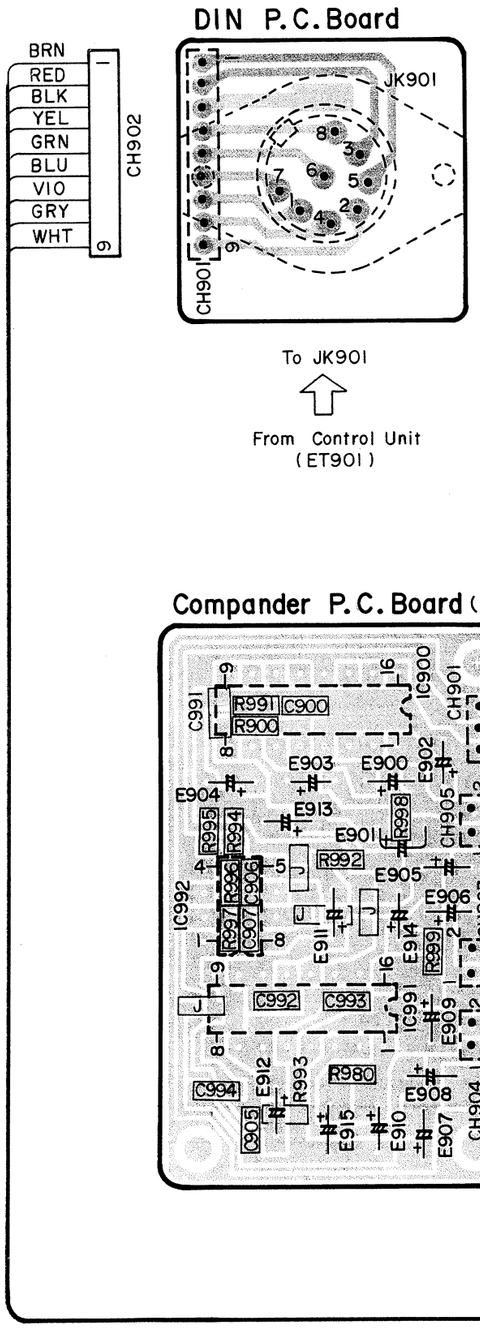
Parts Layout on P.C.Board and Wiring Diagram

All P.C.Boards viewed from soldered side.

Control Section

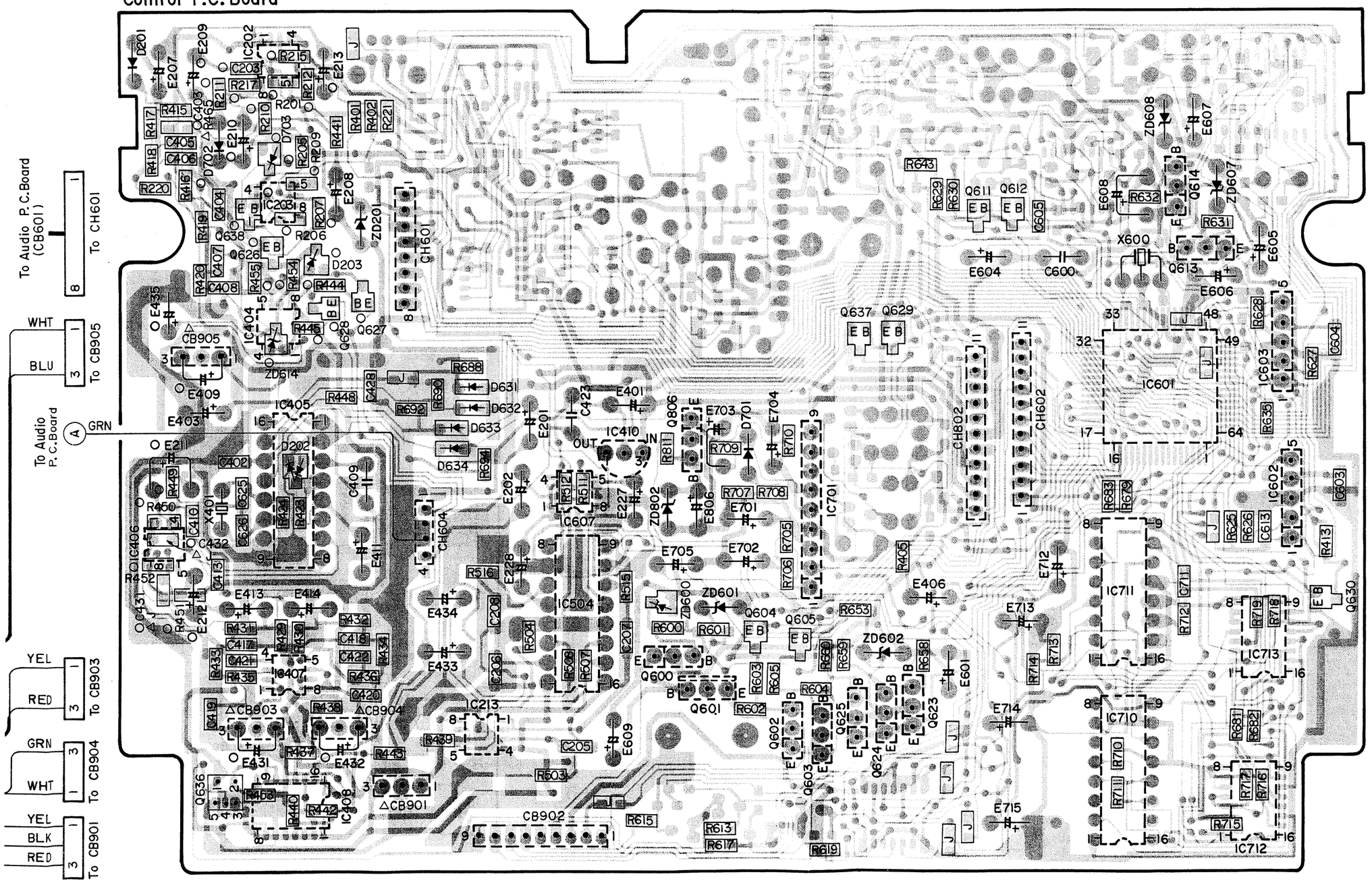
<Base Unit>



Note: ○: For North American Mc
△: For General Foreign M
Other: Common.

All P.C.Boards viewed from soldered side.

Control P.C. Board



Note: ○: For North American Model only,
△: For General Foreign Model only,
Other: Common.

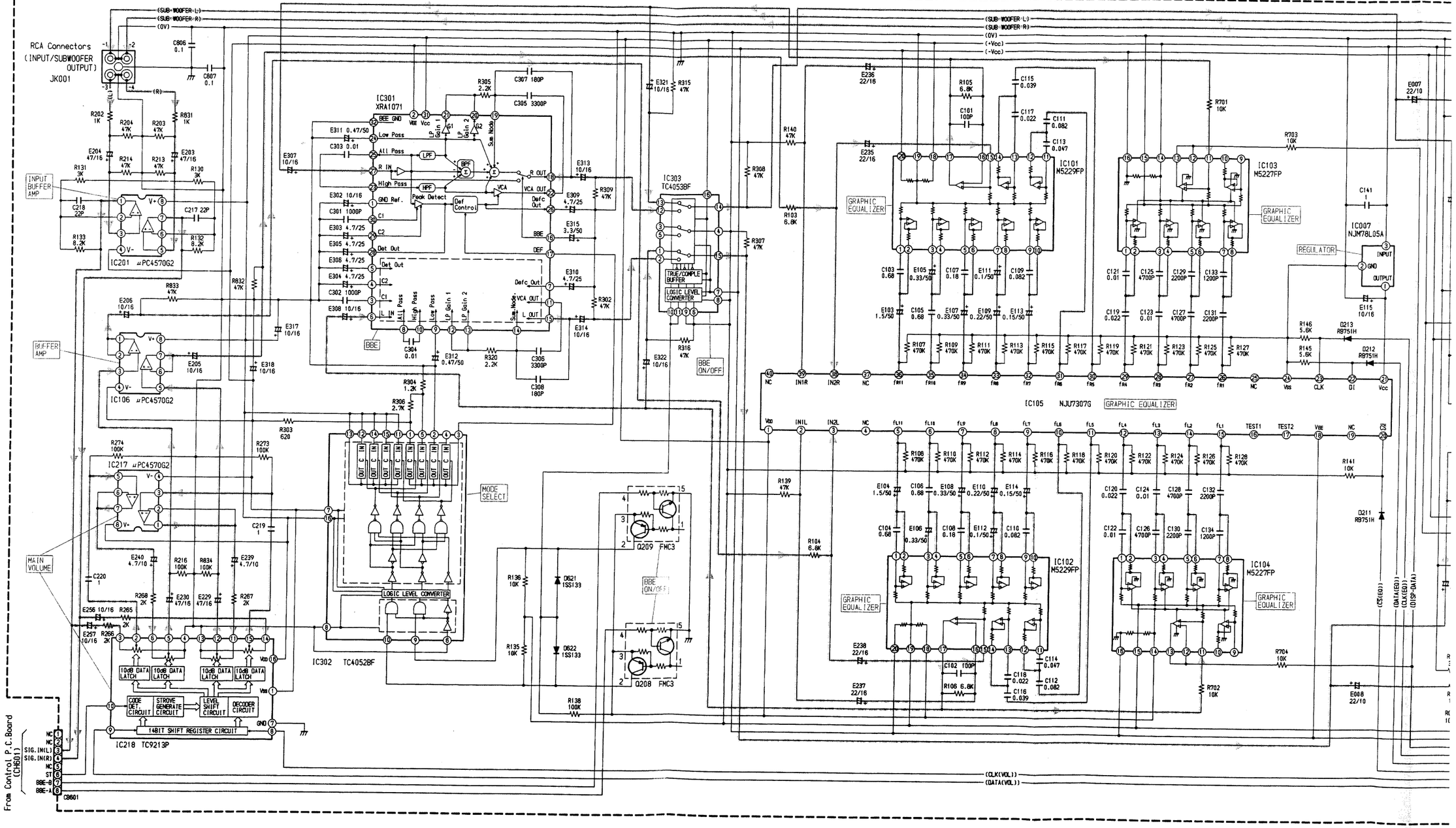
Orange Pattern : Component Side Pattern
Blue Pattern : Foil Side Pattern

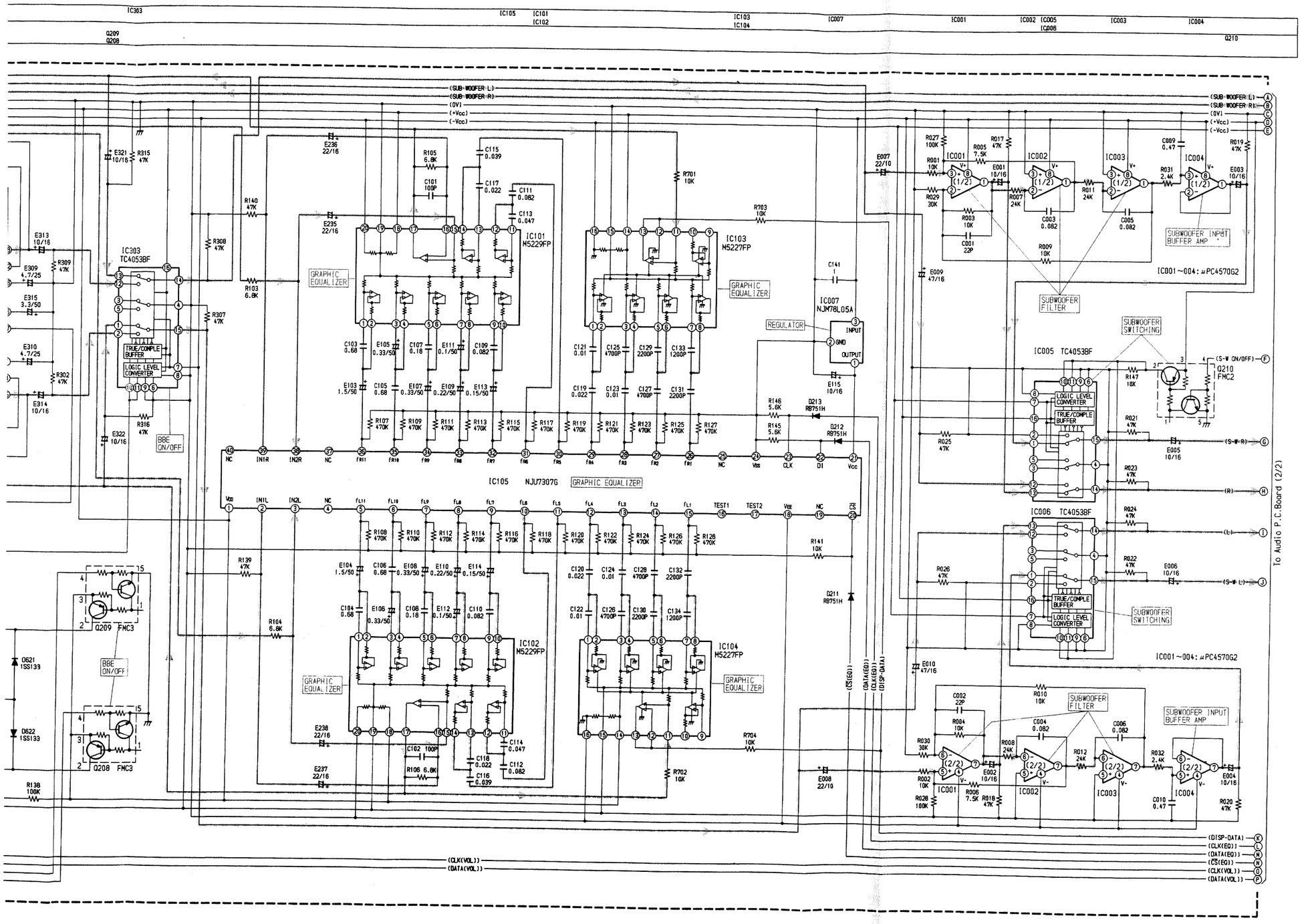
D | E | F | G | H | I | J | K | L

Schematic Diagram (1/4)

IC	IC201 IC106 IC217 IC218	IC302	IC301	IC303	IC105	IC101 IC102	IC103 IC104	IC007
Transistor (Q)			Q209 Q208					

<Base Unit> Audio P.C.Board (1/2)





IC001~004, 106, 201, 217

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC005, 006

1	0V	9	0V
2	0V	10	0V
3	NC	11	0V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	-8.8V	15	0V
8	0V	16	8.7V

IC007

1	4.8V
2	0V
3	18.7V

IC101, 102

1	0V	11	0V
2	0V	12	0V
3	0V	13	0V
4	0V	14	0V
5	0V	15	0V
6	0V	16	0V
7	0V	17	0V
8	0V	18	8.7V
9	0V	19	0V
10	0V	20	-8.8V

IC103, 104

1	0V	9	NC
2	0V	10	NC
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	8.7V
7	0V	15	0V
8	0V	16	-8.8V

IC218

1	-8.8V	9	5V
2	0V	10	5V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC302

1	-7.6V	9	5.2V
2	-2.9V	10	5.2V
3	-0.5V	11	8.7V
4	NC	12	8.7V
5	-5.3V	13	8.7V
6	0V	14	8.7V
7	-1V	15	8.7V
8	0V	16	8.7V

IC301

1	-0.2V	9	-0.2V	17	0V	25	-0.2V
2	-8.8V	10	-0.2V	18	0V	26	-0.2V
3	-0.2V	11	-0.2V	19	-0.2V	27	-0.2V
4	-0.2V	12	-0.2V	20	-0.2V	28	-0.2V
5	-0.2V	13	-0.2V	21	-0.2V	29	-0.2V
6	-0.2V	14	-0.2V	22	-0.2V	30	-0.2V
7	-0.2V	15	-0.2V	23	-0.2V	31	8.7V
8	-0.2V	16	-0.7V	24	-0.2V	32	-0.2V

IC105

1	8.7V	21	4.8V
2	0V	22	4.7V
3	0V	23	0V
4	NC	24	0V
5	0V	25	NC
6	0V	26	0V
7	0V	27	0V
8	0V	28	0V
9	0V	29	0V
10	0V	30	0V
11	0V	31	0V
12	0V	32	0V
13	0V	33	0V
14	0V	34	0V
15	0V	35	0V
16	NC	36	0V
17	NC	37	NC
18	0V	38	0V
19	NC	39	0V
20	0V	40	NC

IC303

1	0V	9	0V
2	0V	10	7.6V
3	NC	11	7.6V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	-8.8V	15	0V
8	0V	16	8.7V

	1	2	3	4	5
Q208~210	NC	0V	8.7V	0V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. P=1/1,000,000

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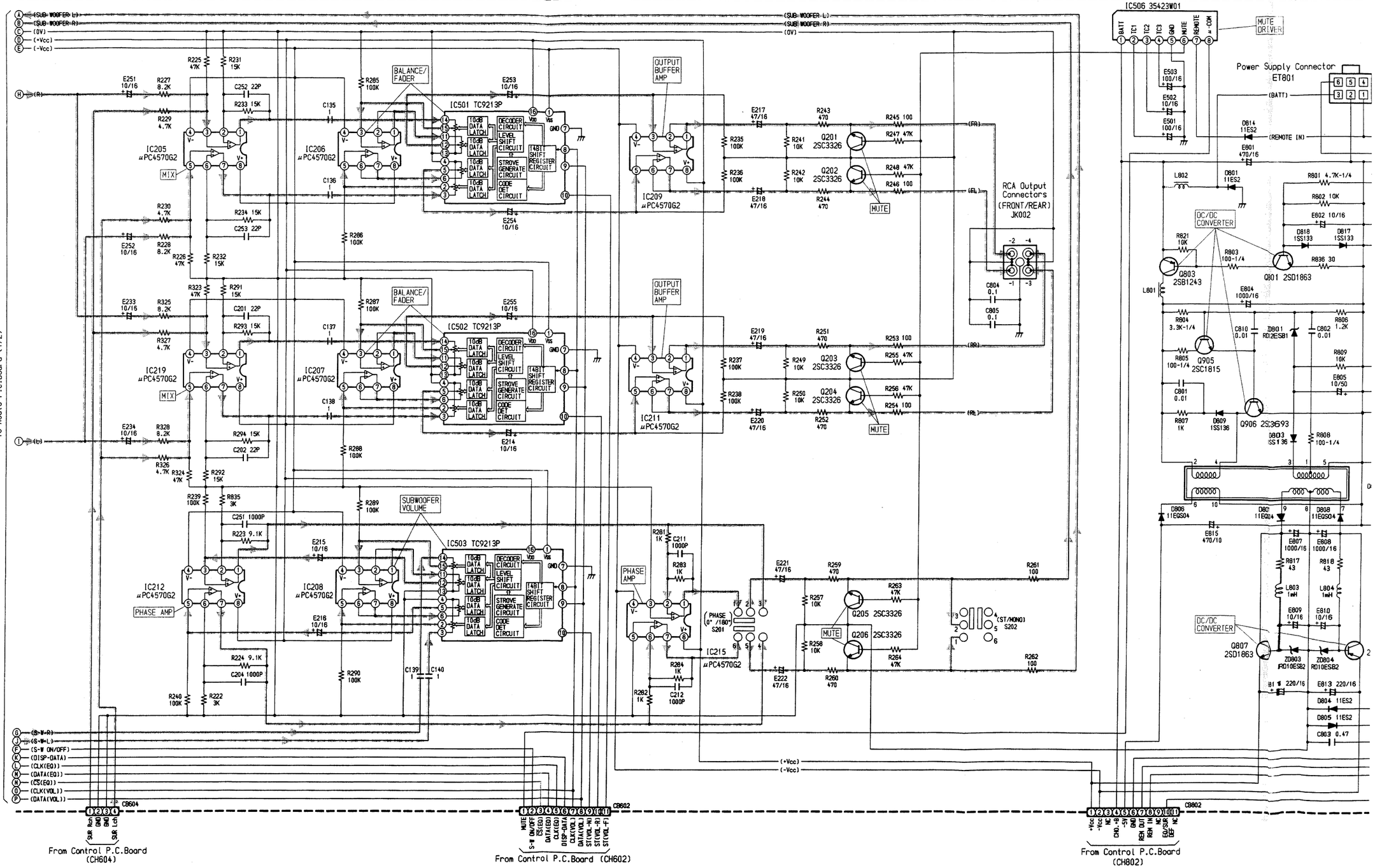
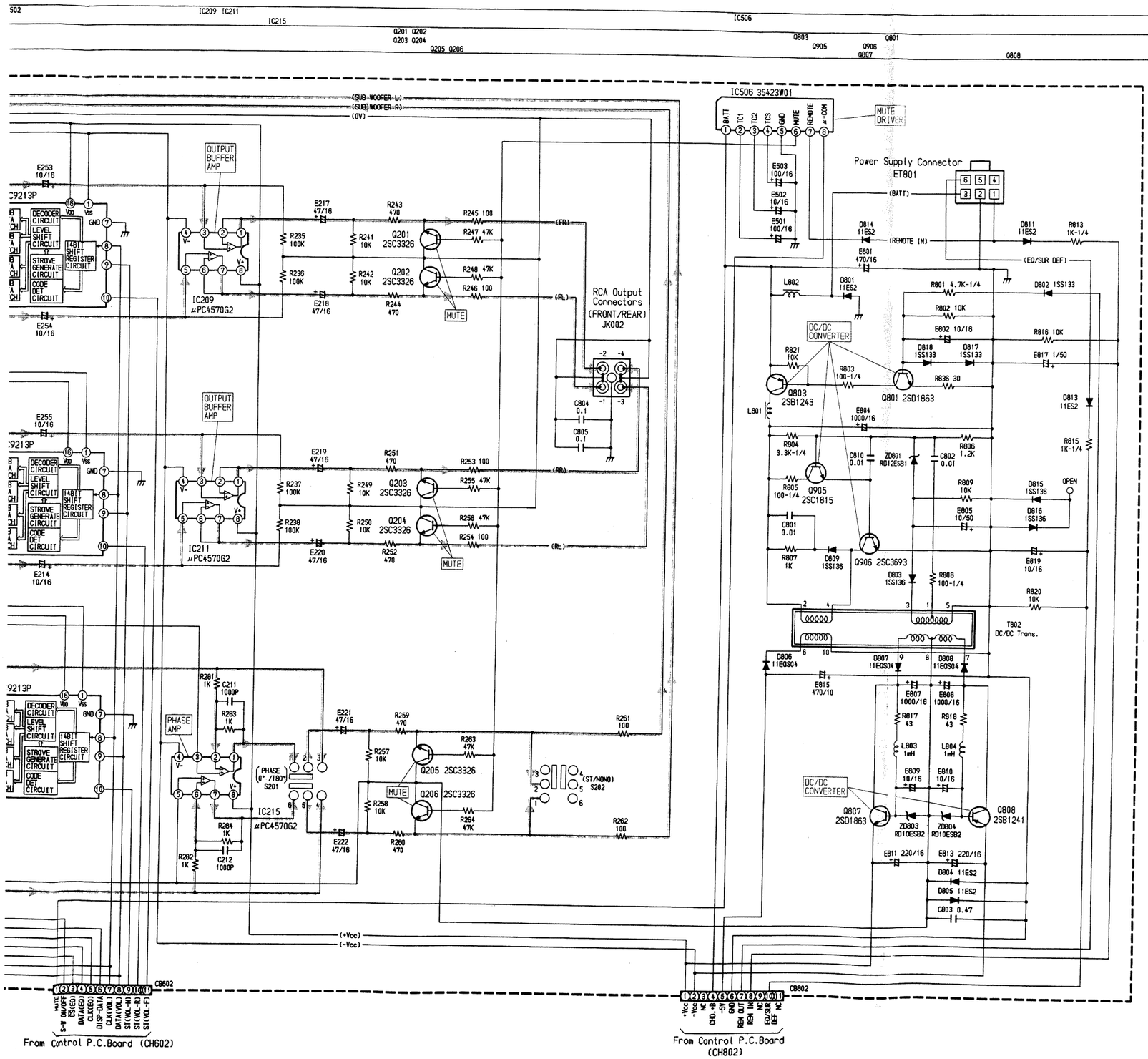
Schematic Diagram (2/4)

IC	IC205 IC219 IC212	IC206 IC207 IC208	IC501 IC502 IC503	IC209 IC211	IC215	IC506
Transistor (Q)				Q201 Q202 Q203 Q204 Q205 Q206		Q803 Q905 Q906 Q807 Q801

<Base Unit> Audio P.C.Board (2/2)





IC205~209, 211, 212, 215, 219

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC501, 502, 503

1	-8.8V	9	5V
2	0V	10	0V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC506

1	14.3V
2	6.8V
3	0V
4	13.8V
5	0V
6	0V
7	14V
8	8.7V

	E	C	B
Q201~206	0V	0V	0V
Q801	0.6V	11.9V	1.2V
Q803	14.3V	13.8V	13.8V
Q807	8.7V	10.8V	10V
Q808	-8.8V	-10.1V	-10.7V
Q905	0.1V	13.7V	0.26V
Q906	0V	0V	0.6V

[Measuring Conditions]

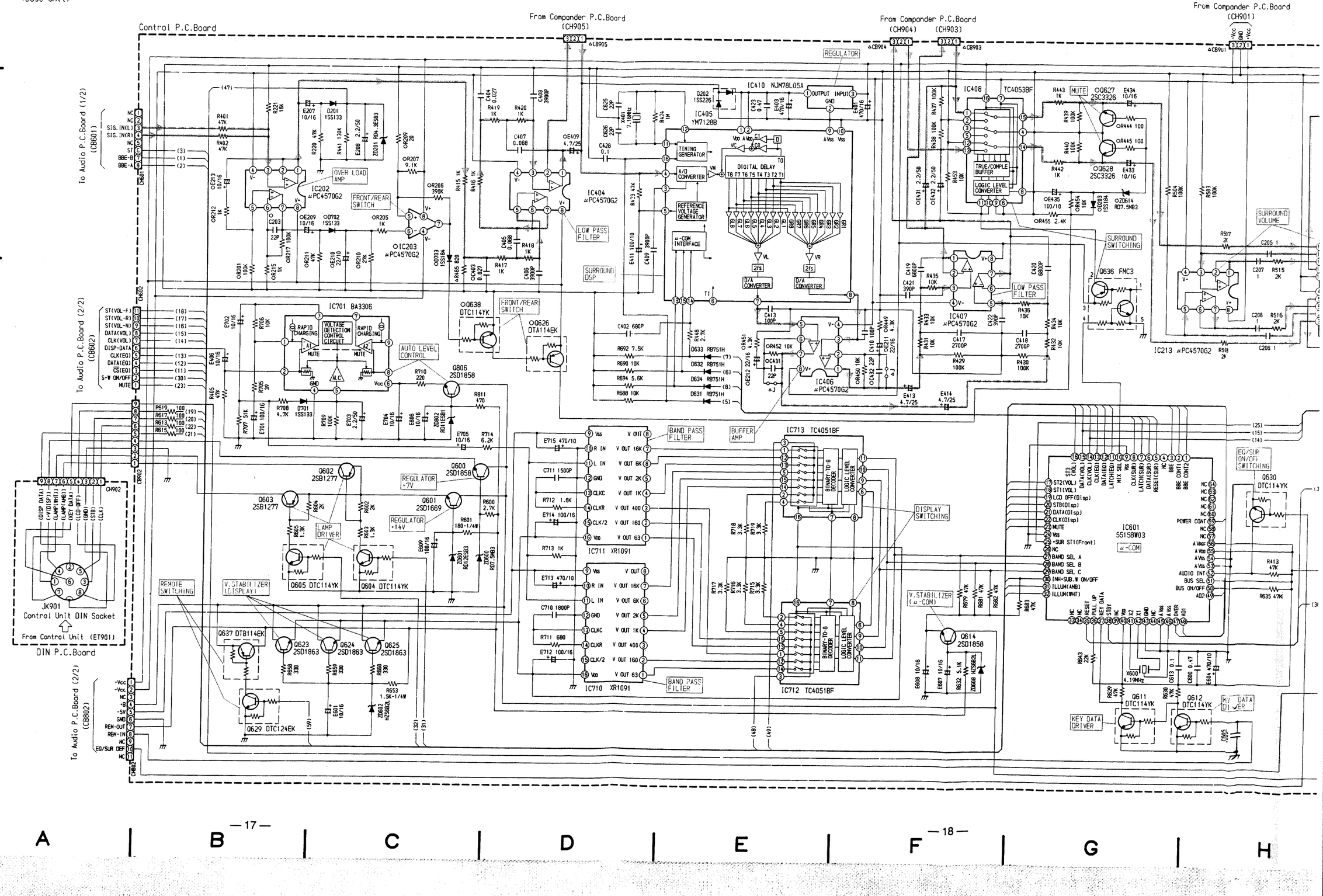
- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

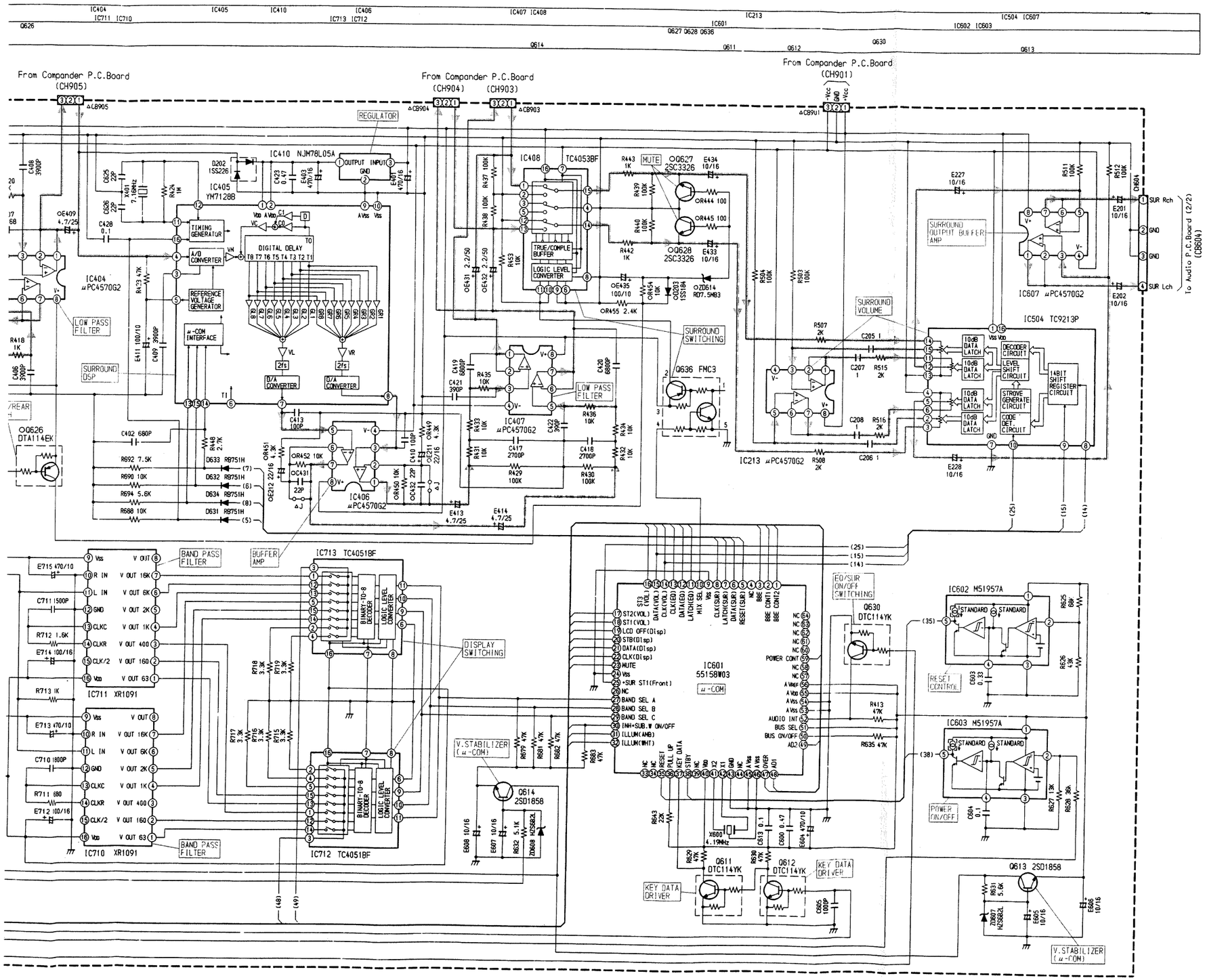
NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P=\frac{1}{1{,}000{,}000}$

Schematic Diagram (3/4)

IC	IC202 IC701	IC203	IC404 IC711 IC710	IC405	IC410	IC406 IC713 IC712	IC407 IC408	IC213
Transistor (Q)	Q637 Q629 Q603 Q623 Q605 Q602 Q624 Q604 Q625	Q638 Q601 Q806 Q600	Q626				IC601 Q627 Q628 Q636 Q614 Q611 Q612 Q630	


(Base Unit)
Control P.C.Board
From Compander P.C.Board (CH905)
From Compander P.C.Board (CH904) (CH903)
From Compander P.C.Board (CH901)
To Audio P.C.Board (1/2) (CB601)
To Audio P.C.Board (2/2) (CB602)
DIN P.C.Board
JK901 Control Unit DIN Socket
From Control Unit (ET901)
IC202 μPC4570G2
IC203 μPC4570G2
IC404 μPC4570G2
IC405 YM7128B
IC406 μPC4570G2
IC407 μPC4570G2
IC213 μPC4570G2
IC410 NJM78L05A
IC408 TC4053BF
IC701 BA3306
IC711 XR1091
IC710 XR1091
IC713 TC4051BF
IC712 TC4051BF
IC601 55158W03
OVER LOAD AMP
FRONT/REAR SWITCH
LOW PASS FILTER
SURROUND DSP
REGULATOR
TIMING GENERATOR
A/D CONVERTER
REFERENCE VOLTAGE GENERATOR
μ-COM INTERFACE
DIGITAL DELAY
D/A CONVERTER
TRUE/COMPLE BUFFER
LOGIC LEVEL CONVERTER
MUTE
SURROUND VOLUME
SURROUND SWITCHING
RAPID CHARGING
VOLTAGE DETECTION CONTROL CIRCUIT
AUTO LEVEL CONTROL
REGULATOR +7V
REGULATOR +14V
LAMP DRIVER
REMOTE SWITCHING
V.STABILIZER (DISPLAY)
V.STABILIZER (μ-COM)
BAND PASS FILTER
BUFFER AMP
DISPLAY SWITCHING
EQ/SUR ON/OFF SWITCHING
KEY DATA DRIVER
Q806 2SD1858
Q602 2SB1277
Q603 2SB1277
Q600 2SD1858
Q601 2SD1669
Q605 DTC114YK
Q604 DTC114YK
Q638 DTC114YK
Q626 DTA114EK
Q637 DTB114EK
Q623 2SD1863
Q624 2SD1863
Q625 2SD1863
Q629 DTC124EK
Q627 2SC3326
Q628 2SC3326
Q636 FMC3
Q614 2SD1858
Q630 DTC114YK
Q611 DTC114YK
Q612 DTC114YK
X600 4.19MHz
X601 7.15MHz
OUTPUT
INPUT
GND
AVss
Vss
Vdd
AVdd
VC
VM
VL
VR
2fs
T0
T1
T2
T3
T4
T5
T6
T7
T8
(CB601)
(CB602)
(CH902)
(CB901)
(CB903)
(CB904)
(CB905)
(CB801)
(CB802)
(CH901)
(CH902)
(CH905)
(CH904)
(CH903)
(CB901)
(CB902)
(CB905)
(CB904)
(CB903)
(CB801)
(CB802)
(CH902)
(CH901



△IC202

1	0V
2	0V
3	0V
4	-8.8V
5	NC
6	NC
7	NC
8	8.7V

○IC202, 404, 407

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

○IC203

1	NC
2	NC
3	NC
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC213, 607

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC405

1	4.8V	9	0V
2	4.8V	10	0V
3	1.8V	11	2V
4	1.8V	12	2V
5	2.4V	13	4.7V
6	NC	14	0V
7	2.2V	15	0V
8	2.2V	16	4.8V

IC406

1	2.2V
2	2.2V
3	2.2V
4	-8.8V
5	2.2V
6	2.2V
7	2.2V
8	8.7V

IC408

1	0V	9	8.7V
2	0V	10	8.7V
3	NC	11	0V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	8.8V	15	0V
8	0V	16	8.7V

IC504

1	-8.8V	9	5V
2	0V	10	5V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC410

1	4.8V
2	0V
3	8.7V

IC602

1	5.2V
2	2V
3	0V
4	0.7V
5	5.2V

IC603

1	5.2V
2	0.7V
3	0V
4	3.4V
5	5.2V

IC710

1	0V
2	0V
3	NC
4	0V
5	0V
6	NC
7	0V
8	0V
9	-4.8V
10	0V
11	0V
12	0V
13	0.8V
14	0.8V
15	NC
16	5.2V

IC601

1	5V	17	0V	33	NC	49	0V
2	5V	18	0V	34	NC	50	4.8V
3	5V	19	5V	35	5V	51	5V
4	NC	20	4V	36	4.3V	52	4.8V
5	5V	21	0V	37	0V	53	0V
6	0V	22	4.2V	38	5V	54	0V
7	0V	23	5V	39	NC	55	5V
8	5V	24	0V	40	5V	56	5V
9	0V	25	5V	41	2.6V	57	NC
10	0V	26	NC	42	0.7V	58	NC
11	5V	27	1.7V	43	0V	59	5V
12	5V	28	1.5V	44	NC	60	NC
13	0V	29	1.2V	45	0V	61	NC
14	0V	30	0V	46	0V	62	NC
15	5V	31	0V	47	0V	63	NC
16	5V	32	0V	48	0V	64	NC

IC701

1	1.9V
2	0V
3	1.7V
4	0V
5	0V
6	9.4V
7	NC
8	NC
9	NC

IC711

1	0V
2	0V
3	0V
4	0V
5	NC
6	0V
7	0V
8	NC
9	-4.8V
10	0V
11	0V
12	0V
13	0.8V
14	0.8V
15	NC
16	5.2V

IC712, 713

1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	1.2V
10	1.5V
11	1.7V
12	0V
13	0V
14	0V
15	0V
16	5.2V

	E	C	B		E	C	B
Q600	7.1V	14.3V	7.6V	Q624	5.2V	14.3V	5.6V
Q601	11.4V	14.3V	12V	Q625	5.2V	14.3V	5.6V
Q602	11.4V	0V	11V	○Q626	8.8V	8.8V	0V
Q603	11.4V	11V	10.6V	○Q627	0V	0V	0.6V
Q604	0V	11V	0V	○Q628	0V	0V	0.6V
Q605	0V	0V	4.3V	Q629	0V	0V	3.6V
Q611	0V	0V	1.4V	Q630	0V	0V	14.4V
Q612	0V	1.4V	0V	Q637	14.3V	14.1V	13.7V
Q613	5V	14.3V	5.6V	○Q638	0V	0V	0V
Q614	5V	14.3V	5.6V	Q806	14.3V	9.8V	10.7V
Q623	5.2V	14.3V	5.6V				

	1	2	3	4	5
Q636	NC	8.7V	8.7V	5V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

Notes : ○: For North American Model only, △: For General Foreign Model only,
Others : Common.

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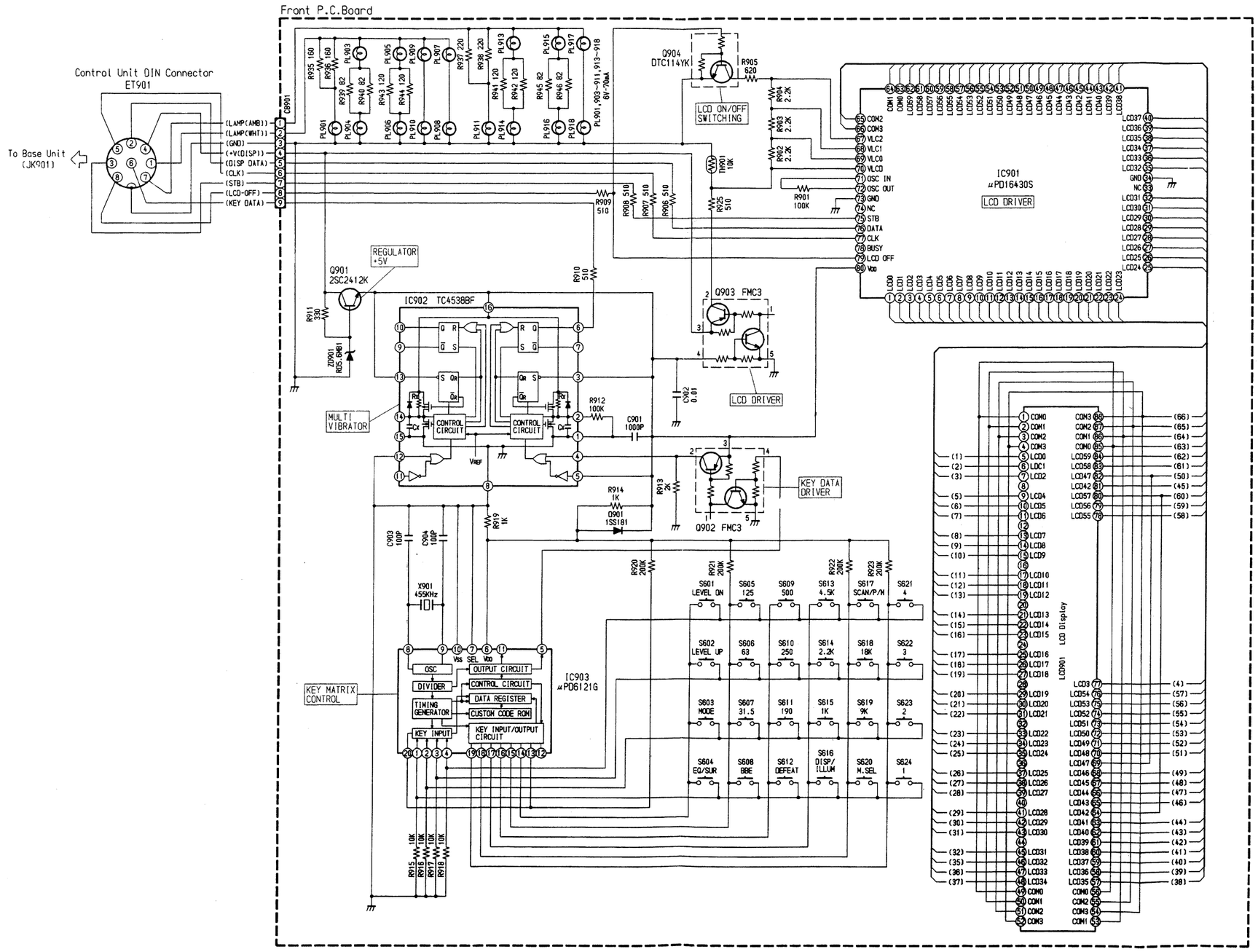
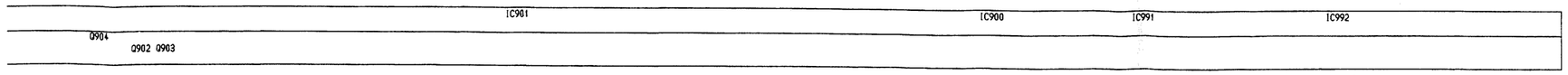
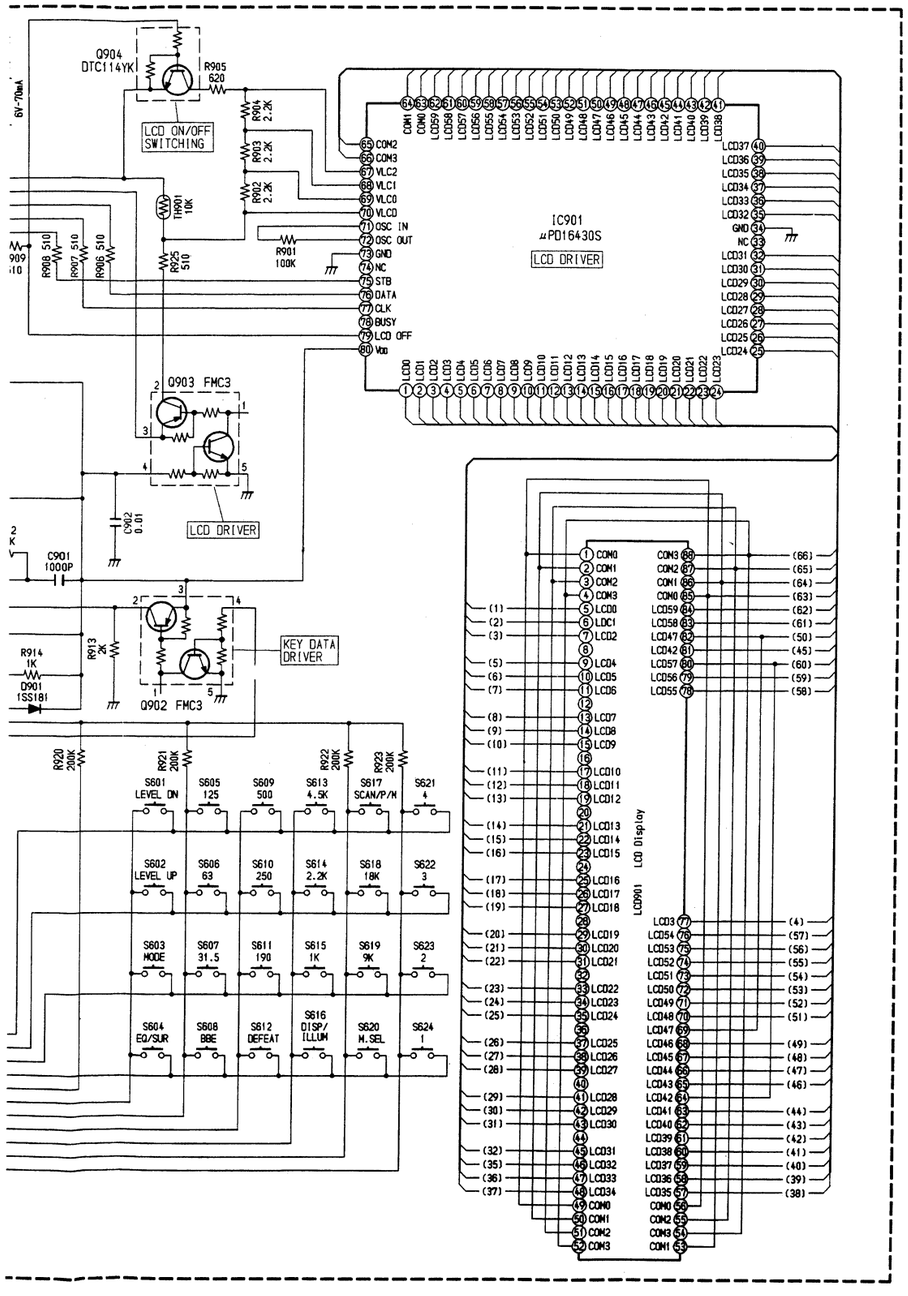
Schematic Diagram (4/4)

IC	IC902	IC903	IC901	IC900	IC991
Transistor (Q)	Q901	Q904	Q902 Q903		

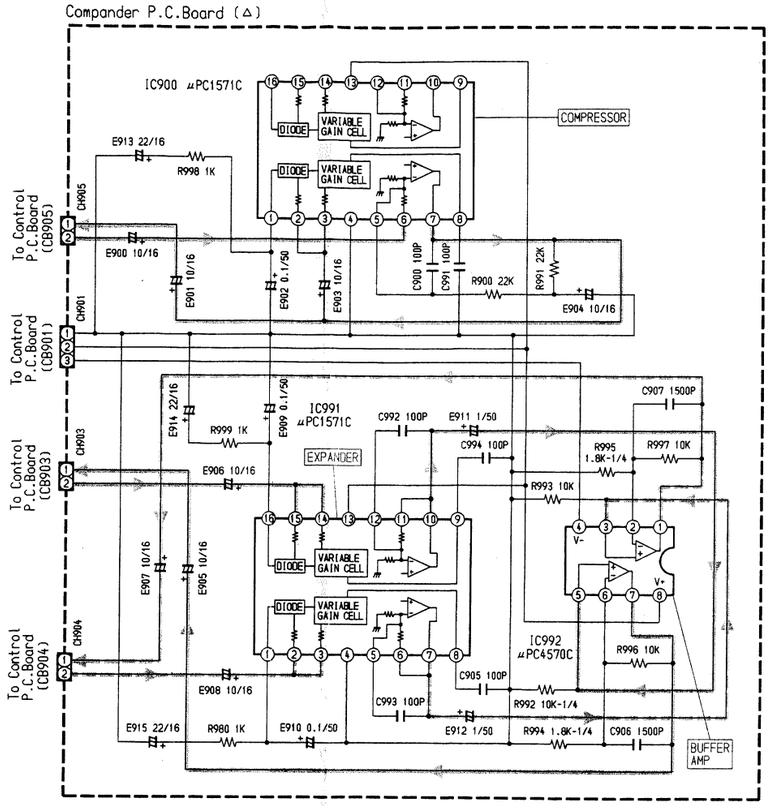
<Control Unit>







Compander P.C.Board (△)



	E	C	B
Q901	5V	7V	5.6V
Q904	0V	0.2V	5V

	1	2	3	4	5
Q902	NC	0V	5V	0V	0V
Q903	NC	7V	7V	5V	0V

IC901

1	3.4V	21	0V	41	0V	61	0V
2	3.4V	22	0V	42	0V	62	0V
3	0V	23	0V	43	0V	63	0V
4	0V	24	0V	44	0V	64	0V
5	0V	25	0V	45	0V	65	0V
6	0V	26	0V	46	0V	66	0V
7	0V	27	0V	47	0V	67	0.7V
8	0V	28	0V	48	0V	68	2.2V
9	0V	29	0V	49	0V	69	4.2V
10	0V	30	0V	50	0V	70	5.8V
11	0V	31	0V	51	0V	71	2.2V
12	0V	32	0V	52	0V	72	0V
13	0V	33	NC	53	0V	73	0V
14	0V	34	0V	54	0V	74	NC
15	0V	35	0V	55	0V	75	5V
16	0V	36	0V	56	0V	76	0V
17	0V	37	0V	57	0V	77	4.4V
18	0V	38	0V	58	0V	78	NC
19	0V	39	0V	59	0V	79	5V
20	0V	40	0V	60	0V	80	5V

△IC900

1	0.9V	9	NC
2	1.8V	10	NC
3	1.8V	11	NC
4	0V	12	NC
5	1.8V	13	8.5V
6	1.8V	14	NC
7	4.8V	15	NC
8	1.8V	16	NC

IC902

1	0V	9	NC
2	4.2V	10	NC
3	5V	11	NC
4	0V	12	0V
5	5V	13	5V
6	0V	14	NC
7	NC	15	NC
8	0V	16	5V

IC903

1	0V	11	NC
2	0V	12	NC
3	0V	13	2.3V
4	0V	14	2.3V
5	0V	15	2.3V
6	2.6V	16	2.3V
7	0V	17	2.3V
8	0V	18	2.3V
9	0V	19	2.3V
10	0V	20	2.3V

△IC991

1	0.8V	9	1.8V
2	1.8V	10	3.1V
3	1.8V	11	3.1V
4	1.8V	12	1.8V
5	1.8V	13	8.5V
6	3.1V	14	1.8V
7	3.1V	15	1.8V
8	1.8V	16	0.8V

△IC992

1	0V
2	0V
3	0V
4	-8.5V
5	0V
6	0V
7	0V
8	8.5V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

Notes : ○: For North American Model only, △: For General Foreign Model only, Others : Common.

Schematic Diagram (1/4)

IC	IC201 IC106 IC217 IC218	IC302	IC301	IC303	IC105	IC101 IC102	IC103 IC104	IC007
Transistor (Q)				Q209 Q208				

<Base Unit> Audio P.C.Board (1/2)

RCA Connectors (INPUT/SUBWOOFER OUTPUT) JK001

IC201 μPC4570G2

IC106 μPC4570G2

IC217 μPC4570G2

IC301 XRA1071

IC302 TC4052BF

IC303 TC4053BF

IC218 TC9213P

IC101 M5229FP

IC102 M5229FP

IC103 M5227FP

IC104 M5227FP

IC105 NJU7307G GRAPHIC EQUALIZER

IC007 NJM78L05A

INPUT BUFFER AMP

BUFFER AMP

MAIN VOLUME

MODE SELECT

LOGIC LEVEL CONVERTER

TRUE/COMPLE BUFFER

LOGIC LEVEL CONVERTER

BBE ON/OFF

GRAPHIC EQUALIZER

REGULATOR

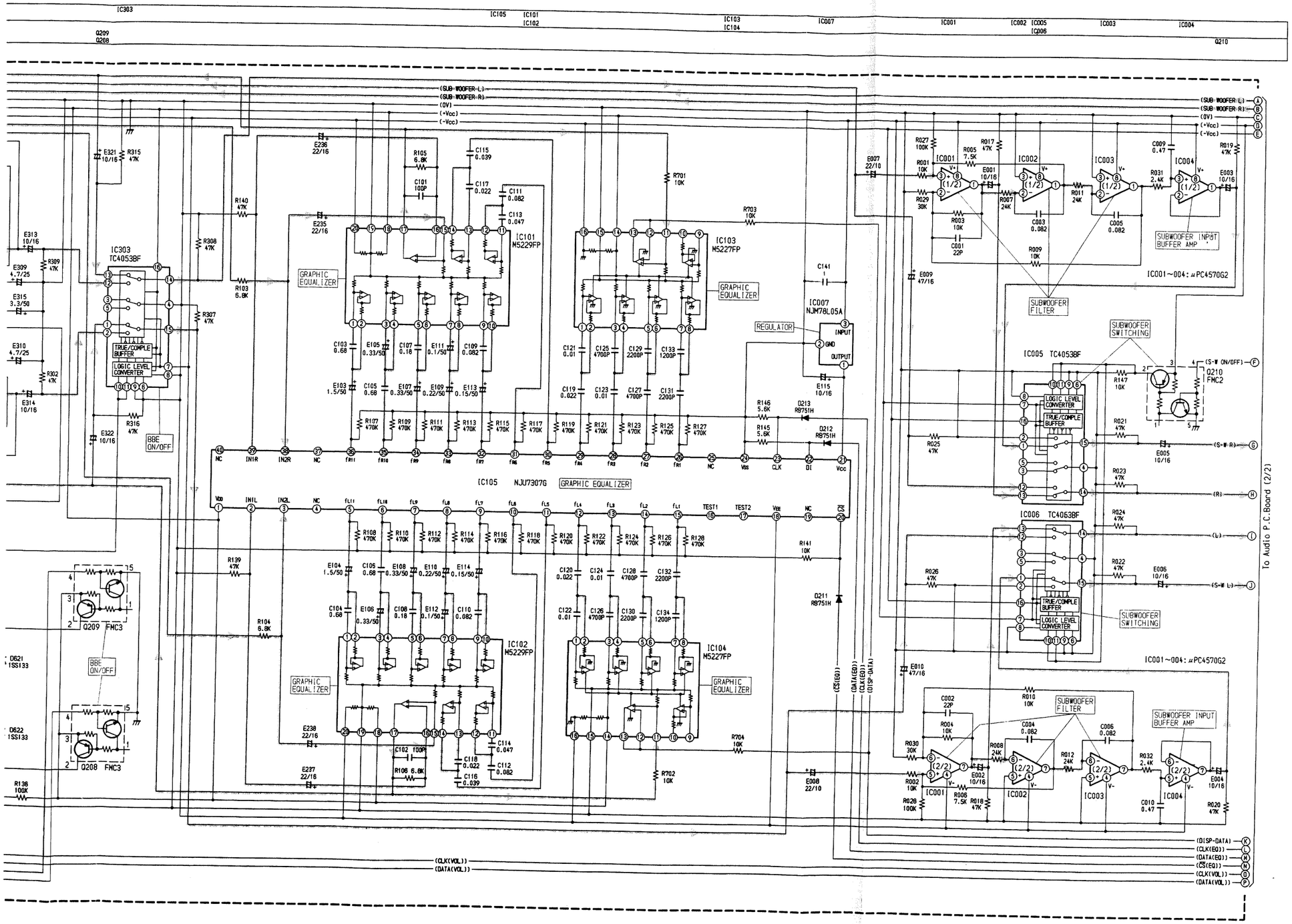
CODE DET CIRCUIT | STROVE GENERATE CIRCUIT | LEVEL SHIFT CIRCUIT | DECODER CIRCUIT

14BIT SHIFT REGISTER CIRCUIT

From Control P.C.Board (CH601)

CB601

(SUB-WOOFER-L)
(SUB-WOOFER-R)
(0V)
(+Vcc)
(-Vcc)
(CLK(VOL))
(DATA(VOL))
(CS(EQ))
(DATA(EQ))
(CLK(EQ))
(DISP-DATA)



IC001~004, 106, 201, 217

1	0V		
2	0V		
3	0V		
4	-8.8V		
5	0V		
6	0V		
7	0V		
8	8.7V		

IC005, 006

1	0V	9	0V
2	0V	10	0V
3	NC	11	0V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	-8.8V	15	0V
8	0V	16	8.7V

IC007

1	4.8V
2	0V
3	18.7V

IC101, 102

1	0V	11	0V
2	0V	12	0V
3	0V	13	0V
4	0V	14	0V
5	0V	15	0V
6	0V	16	0V
7	0V	17	0V
8	0V	18	8.7V
9	0V	19	0V
10	0V	20	-8.8V

IC103, 104

1	0V	9	NC
2	0V	10	NC
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	8.7V
7	0V	15	0V
8	0V	16	-8.8V

IC218

1	-8.8V	9	5V
2	0V	10	5V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC302

1	-7.6V	9	5.2V
2	-2.9V	10	5.2V
3	-0.5V	11	8.7V
4	NC	12	8.7V
5	-5.3V	13	8.7V
6	0V	14	8.7V
7	-1V	15	8.7V
8	0V	16	8.7V

IC301

1	-0.2V	9	-0.2V	17	0V	25	-0.2V
2	-8.8V	10	-0.2V	18	0V	26	-0.2V
3	-0.2V	11	-0.2V	19	-0.2V	27	-0.2V
4	-0.2V	12	-0.2V	20	-0.2V	28	-0.2V
5	-0.2V	13	-0.2V	21	-0.2V	29	-0.2V
6	-0.2V	14	-0.2V	22	-0.2V	30	-0.2V
7	-0.2V	15	-0.2V	23	-0.2V	31	8.7V
8	-0.2V	16	-0.7V	24	-0.2V	32	-0.2V

IC105

1	8.7V	21	4.8V
2	0V	22	4.7V
3	0V	23	0V
4	NC	24	0V
5	0V	25	NC
6	0V	26	0V
7	0V	27	0V
8	0V	28	0V
9	0V	29	0V
10	0V	30	0V
11	0V	31	0V
12	0V	32	0V
13	0V	33	0V
14	0V	34	0V
15	0V	35	0V
16	NC	36	0V
17	NC	37	NC
18	0V	38	0V
19	NC	39	0V
20	0V	40	NC

IC303

1	0V	9	0V
2	0V	10	7.6V
3	NC	11	7.6V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	-8.8V	15	0V
8	0V	16	8.7V

	1	2	3	4	5
Q208~210	NC	0V	8.7V	0V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P=\frac{1}{1{,}000,000}$

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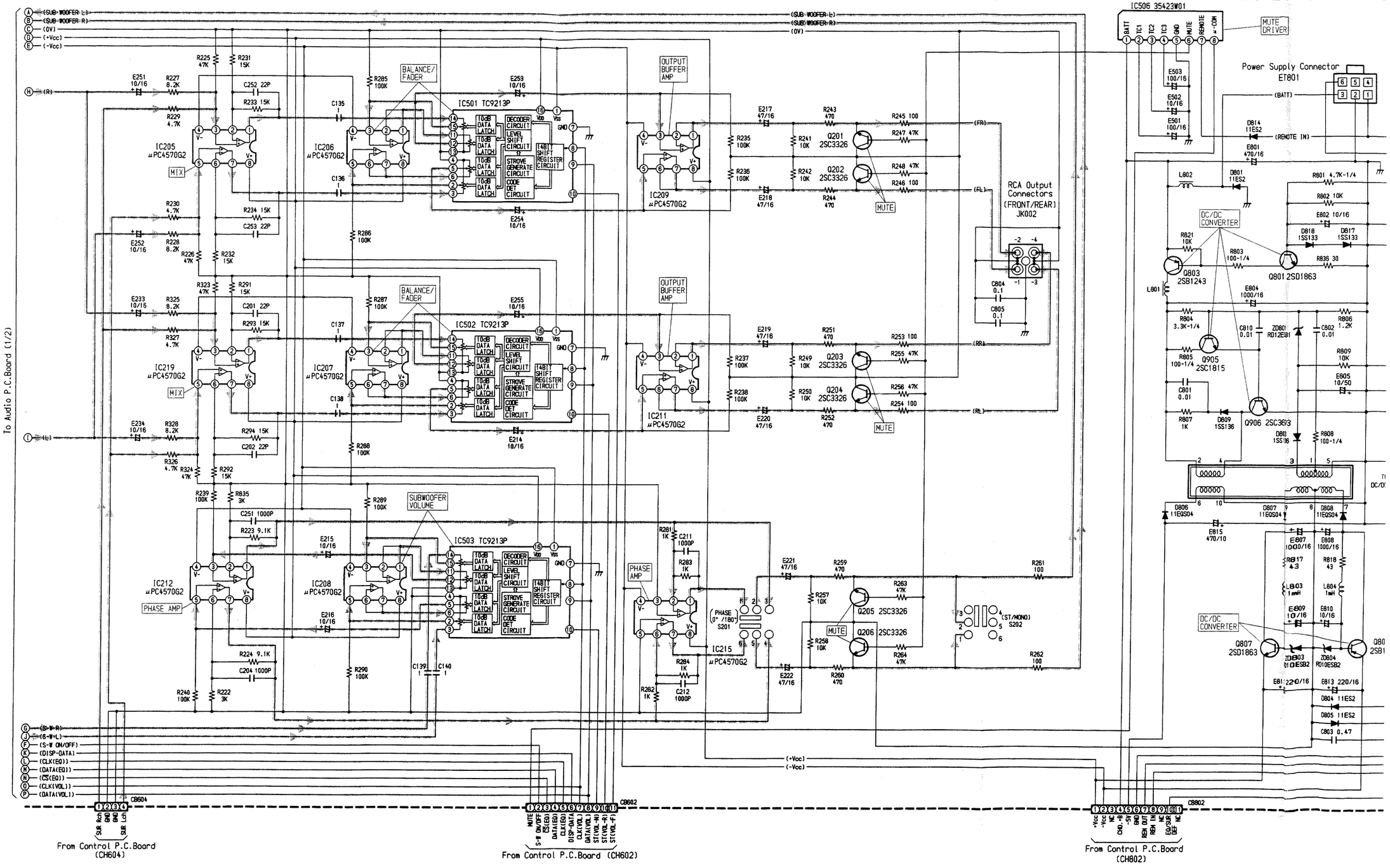
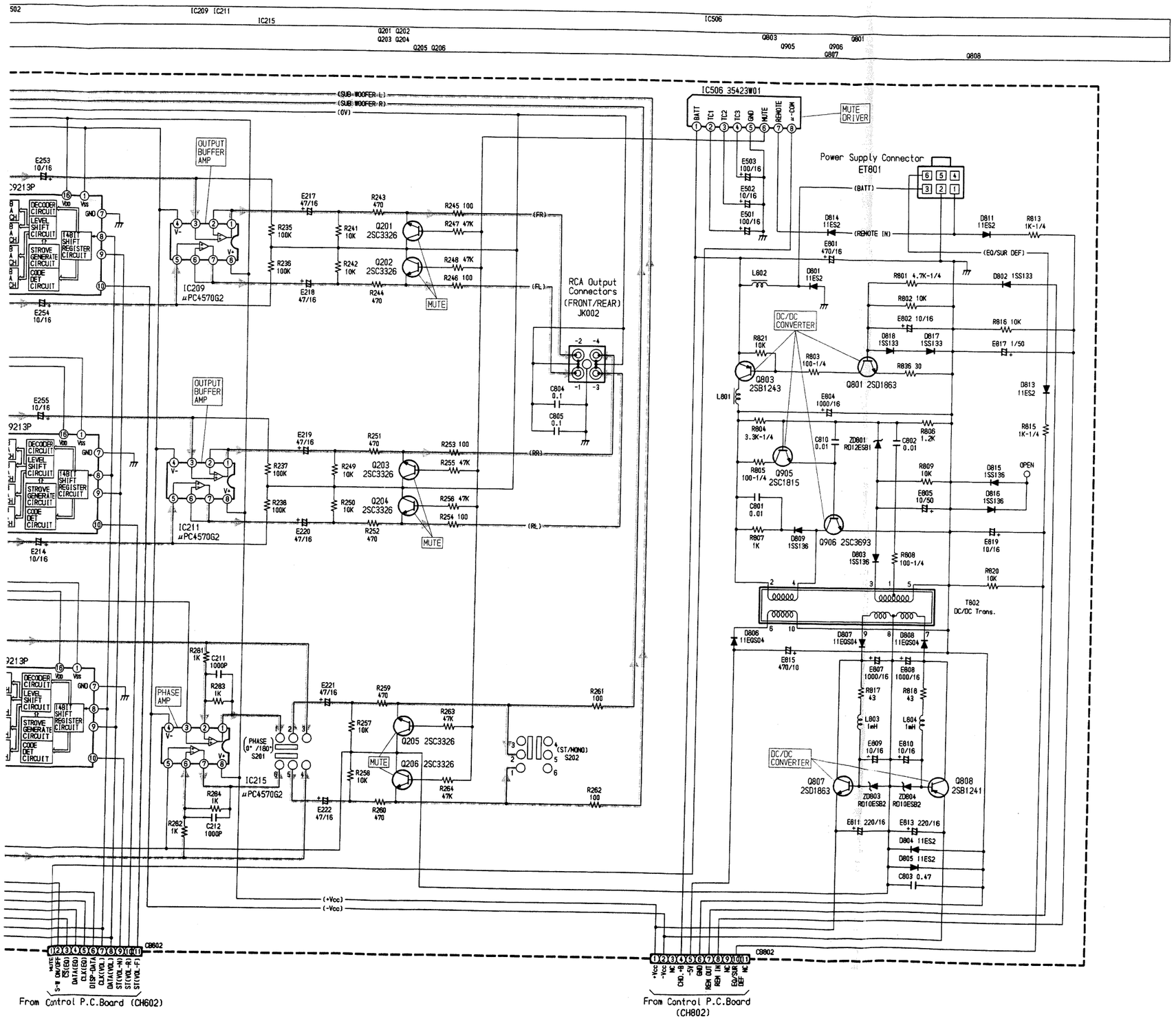
Schematic Diagram (2/4)

IC	IC205 IC219 IC212	IC206 IC207 IC208	IC501 IC502 IC503	IC209 IC211 IC215	IC506
Transistor (Q)				Q201 Q202 Q203 Q204 Q205 Q206	Q803 Q905 Q906 Q807 Q801

<Base Unit> Audio P.C.Board (2/2)





IC205~209, 211, 212, 215, 219

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC501, 502, 503

1	-8.8V	9	5V
2	0V	10	0V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC506

1	14.3V
2	6.8V
3	0V
4	13.8V
5	0V
6	0V
7	14V
8	8.7V

	E	C	B
Q201~206	0V	0V	0V
Q801	0.6V	11.9V	1.2V
Q803	14.3V	13.8V	13.8V
Q807	8.7V	10.8V	10V
Q808	-8.8V	-10.1V	-10.7V
Q905	0.1V	13.7V	0.26V
Q906	0V	0V	0.6V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Schematic Diagram (3/4)

IC	IC202 IC701	IC203	IC404 IC711 IC710	IC405	IC410	IC406 IC713 IC712	IC407 IC408	IC213 IC601
Transistor (Q)	Q637 Q629 Q603 Q623 Q605 Q602 Q624 Q604 Q625	Q638 Q601 Q606 Q600	Q626			Q614	Q611	Q612 Q627 Q628 Q636 Q630

<Base Unit>

Control P.C.Board

From Compander P.C.Board (CH905)

From Compander P.C.Board (CH904) (CH903)

From Compander P.C.Board (CH901)

To Audio P.C.Board (1/2) (CB601)

To Audio P.C.Board (2/2) (CB602)

IC202 μPC4570G2 — OVER LOAD AMP

IC203 μPC4570G2

IC404 μPC4570G2

IC701 BA3306 — VOLTAGE DETECTION CONTROL CIRCUIT, RAPID CHARGING, MUTE

IC405 YM7128B — TIMING GENERATOR, A/D CONVERTER, REFERENCE VOLTAGE GENERATOR, μ-COM INTERFACE, DIGITAL DELAY, D/A CONVERTER

IC410 NJM78L05A — REGULATOR

IC406 μPC4570G2

IC407 μPC4570G2

IC408 TC4053BF — TRUE/COMPLE BUFFER, LOGIC LEVEL CONVERTER

IC213 μPC4570G2

IC711 XR1091 — BAND PASS FILTER

IC710 XR1091 — BAND PASS FILTER

IC713 TC4051BF — BINARY-TO-8 DECODER, LOGIC LEVEL CONVERTER

IC712 TC4051BF — BINARY-TO-8 DECODER, LOGIC LEVEL CONVERTER

IC601 55158W03 — μ-COM

Q806 2SD1858 — AUTO LEVEL CONTROL

Q602 2SB1277 — REGULATOR +7V

Q600 2SD1858

Q603 2SB1277 — LAMP DRIVER

Q601 2SD1669 — REGULATOR +14V

Q605 DTC114YK

Q604 DTC114YK

Q638 DTC114YK — FRONT/REAR SWITCH

Q626 DTA114EK

Q637 DTB114EK

Q623 2SD1863

Q624 2SD1863

Q625 2SD1863

Q629 DTC124EK

Q614 2SD1858 — V.STABILIZER (μ-COM)

Q611 DTC114YK — KEY DATA DRIVER

Q612 DTC114YK — KEY DATA DRIVER

Q627 2SC3326 — MUTE

Q628 2SC3326

Q636 FMC3 — SURROUND SWITCHING

Q630 DTC114YK — EQ/SUR ON/OFF SWITCHING

Q607 DTC114YK — DISPLAY SWITCHING

Q608 DTC114YK — REMOTE SWITCHING

Q609 DTC114YK — V.STABILIZER (DISPLAY)

JK901 Control Unit DIN Socket

From Control Unit (ET901)

DIN P.C.Board

CH902

CB902

CB901

CB903

CB904

CB905

CB601

CB602

X601 7.16MHz

X600 4.19MHz

REGULATOR

FRONT/REAR SWITCH

LOW PASS FILTER

SURROUND DSP

SURROUND VOLUME

SURROUND SWITCHING

DISPLAY SWITCHING

REMOTE SWITCHING

V.STABILIZER (DISPLAY)

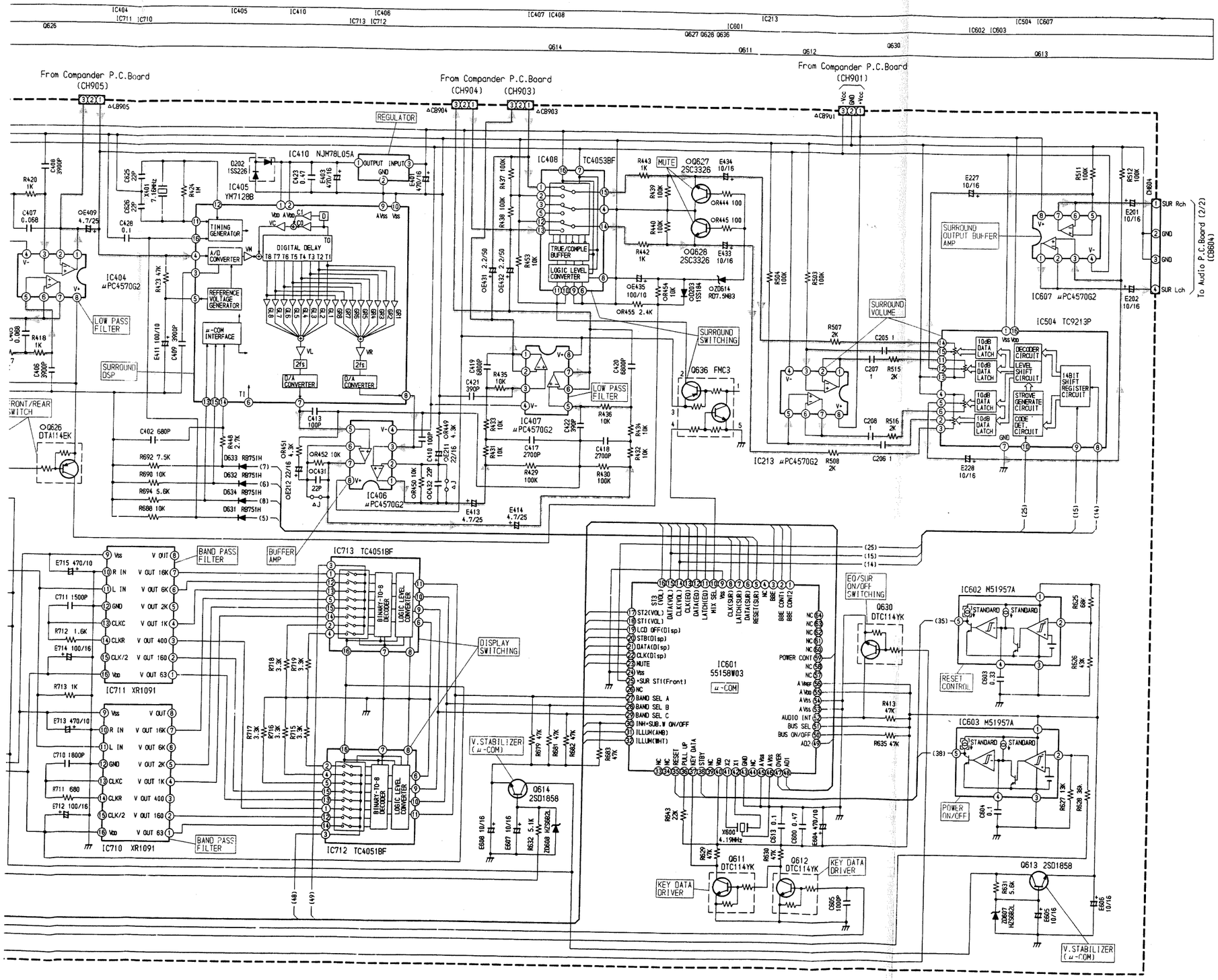
V.STABILIZER (μ-COM)

BUFFER AMP

EQ/SUR ON/OFF SWITCHING

KEY DATA DRIVER

MUTE



△IC202

1	0V
2	0V
3	0V
4	-8.8V
5	NC
6	NC
7	NC
8	8.7V

○IC202, 404, 407

1	0V
2	0V
3	0V
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

○IC203

1	NC
2	NC
3	NC
4	-8.8V
5	0V
6	0V
7	0V
8	8.7V

IC213, 607

1	0V
2	0V
3	0V
4	-8.8V
5	2.4V
6	NC
7	2.2V
8	2.2V

IC405

1	4.8V	9	0V
2	4.8V	10	0V
3	1.8V	11	2V
4	1.8V	12	2V
5	2.4V	13	4.7V
6	NC	14	0V
7	2.2V	15	0V
8	2.2V	16	4.8V

IC406

1	2.2V
2	2.2V
3	2.2V
4	-8.8V
5	2.2V
6	2.2V
7	2.2V
8	8.7V

IC408

1	0V	9	8.7V
2	0V	10	8.7V
3	NC	11	0V
4	0V	12	0V
5	NC	13	0V
6	0V	14	0V
7	-8.8V	15	0V
8	0V	16	8.7V

IC504

1	-8.8V	9	5V
2	0V	10	5V
3	0V	11	0V
4	0V	12	0V
5	0V	13	0V
6	0V	14	0V
7	0V	15	0V
8	0V	16	8.7V

IC410

1	4.8V
2	0V
3	8.7V

IC602

1	5.2V
2	2V
3	0V
4	0.7V
5	5.2V

IC603

1	5.2V
2	0.7V
3	0V
4	3.4V
5	5.2V

IC710

1	0V
2	0V
3	NC
4	0V
5	0V
6	NC
7	0V
8	0V
9	-4.8V
10	0V
11	0V
12	0V
13	0.8V
14	0.8V
15	NC
16	5.2V

IC601

1	5V	17	0V	33	NC	49	0V
2	5V	18	0V	34	NC	50	4.8V
3	5V	19	5V	35	5V	51	5V
4	NC	20	4V	36	4.3V	52	4.8V
5	5V	21	0V	37	0V	53	0V
6	0V	22	4.2V	38	5V	54	0V
7	0V	23	5V	39	NC	55	5V
8	5V	24	0V	40	5V	56	5V
9	0V	25	5V	41	2.6V	57	NC
10	0V	26	NC	42	0.7V	58	NC
11	5V	27	1.7V	43	0V	59	5V
12	5V	28	1.5V	44	NC	60	NC
13	0V	29	1.2V	45	0V	61	NC
14	0V	30	0V	46	0V	62	NC
15	5V	31	0V	47	0V	63	NC
16	5V	32	0V	48	0V	64	NC

IC701

1	1.9V
2	0V
3	1.7V
4	0V
5	0V
6	9.4V
7	NC
8	NC
9	NC

IC711

1	0V
2	0V
3	0V
4	0V
5	NC
6	0V
7	0V
8	NC
9	4.8V
10	0V
11	0V
12	0V
13	0.8V
14	0.8V
15	NC
16	5.2V

IC712, 713

1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	1.2V
10	1.5V
11	1.7V
12	0V
13	0V
14	0V
15	0V
16	5.2V

	E	C	B		E	C	B
Q600	7.1V	14.3V	7.6V	Q624	5.2V	14.3V	5.6V
Q601	11.4V	14.3V	12V	Q625	5.2V	14.3V	5.6V
Q602	11.4V	0V	11V	○Q626	8.8V	8.8V	0V
Q603	11.4V	11V	10.6V	○Q627	0V	0V	0.5V
Q604	0V	11V	0V	○Q628	0V	0V	0.5V
Q605	0V	0V	4.3V	Q629	0V	0V	3.6V
Q611	0V	0V	1.4V	Q630	0V	0V	14.4V
Q612	0V	1.4V	0V	Q637	14.3V	14.1V	13.7V
Q613	5V	14.3V	5.6V	○Q638	0V	0V	0V
Q614	5V	14.3V	5.6V	Q806	14.3V	9.8V	10.7V
Q623	5.2V	14.3V	5.6V				

	1	2	3	4	5
Q636	NC	8.7V	8.7V	5V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :

1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Notes : ○: For North American Model only, △: For General Foreign Model only, Others : Common.

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Schematic Diagram (4/4)

IC	IC902	IC903	IC901	IC900	IC991
Transistor (Q)	Q901	Q904	Q902 Q903		

<Control Unit>

Front P.C.Board

Control Unit DIN Connector ET901

To Base Unit (JK901)

(LAMP(AMB)) (LAMP(WHT)) (GND) (+V(DISP)) (DISP DATA) (CLK) (STB) (LCD-OFF) (KEY DATA)

CB901

PL901 PL904 PL906 PL910 PL911 PL914 PL916 PL918 PL901,903~911,913~918 6V-70mA

PL903 PL905 PL907 PL909 PL913 PL915 PL917

R935 160 R936 160 R939 82 R940 82 R943 120 R944 120 R941 120 R942 120 R937 220 R938 220 R945 82 R946 82

Q904 DTC114YK R905 620

LCD ON/OFF SWITCHING

TH901 10K

R901 100K

R902 2.2K R903 2.2K R904 2.2K

R909 510 R908 510 R907 510 R906 510 R905 510

IC901 μPD16430S LCD DRIVER

COM0 COM1 COM2 COM3 LCD0 LCD1 LCD2 LCD3 LCD4 LCD5 LCD6 LCD7 LCD8 LCD9 LCD10 LCD11 LCD12 LCD13 LCD14 LCD15 LCD16 LCD17 LCD18 LCD19 LCD20 LCD21 LCD22 LCD23 LCD24 LCD25 LCD26 LCD27 LCD28 LCD29 LCD30 LCD31 LCD32 LCD33 LCD34 LCD35 LCD36 LCD37 LCD38 LCD39 LCD40 LCD41 LCD42 LCD43 LCD44 LCD45 LCD46 LCD47 LCD48 LCD49 LCD50 LCD51 LCD52 LCD53 LCD54 LCD55 LCD56 LCD57 LCD58 LCD59 LCD60 LCD61 LCD62 LCD63 OSC IN OSC OUT GND NC STB DATA CLK BUSY LCD OFF Vdd

REGULATOR +5V

Q901 2SC2412K

R911 330

ZD901 RD5.6MB1

R910 510

IC902 TC4538BF

MULTI VIBRATOR

CONTROL CIRCUIT

Cx Rx

VREF

Q903 FMC3

LCD DRIVER

C902 0.01

R912 100K

C901 1000P

Q902 FMC3

KEY DATA DRIVER

R914 1K

D901 1SS181

R913 1K

C903 100P C904 100P

R919 1K

Y901 455KHz

R920 200K R921 200K R922 200K R923 200K

S601 LEVEL DN S605 125 S609 500 S613 4.5K S617 SCAN/P/M S621 4

S602 LEVEL UP S606 63 S610 250 S614 2.2K S618 18K S622 3

S603 MODE S607 31.5 S611 190 S615 1K S619 9K S623 2

S604 EQ/SUR S608 BBE S612 DEFEAT S616 DISP/ ILLUM S620 M.SEL S624 1

IC903 μPD6121G

Vss SEL Vdd

OSC DIVIDER TIMING GENERATOR KEY INPUT

OUTPUT CIRCUIT CONTROL CIRCUIT DATA REGISTER CUSTOM CODE ROM KEY INPUT/OUTPUT CIRCUIT

KEY MATRIX CONTROL

R915 10K R916 10K R917 10K R918 10K

LCD901 LCD Display

Compander P.C.Board (△)

IC900 μPC1571C

VARIABLE GAIN CELL DIODE

E913 22/16 R998 1K E900 10/16 E901 10/16 E902 0.1/50 E903 10/16 C900 100P C991 100P

To Control P.C.Board (CB905) CH905

To Control P.C.Board (CB901) CH901

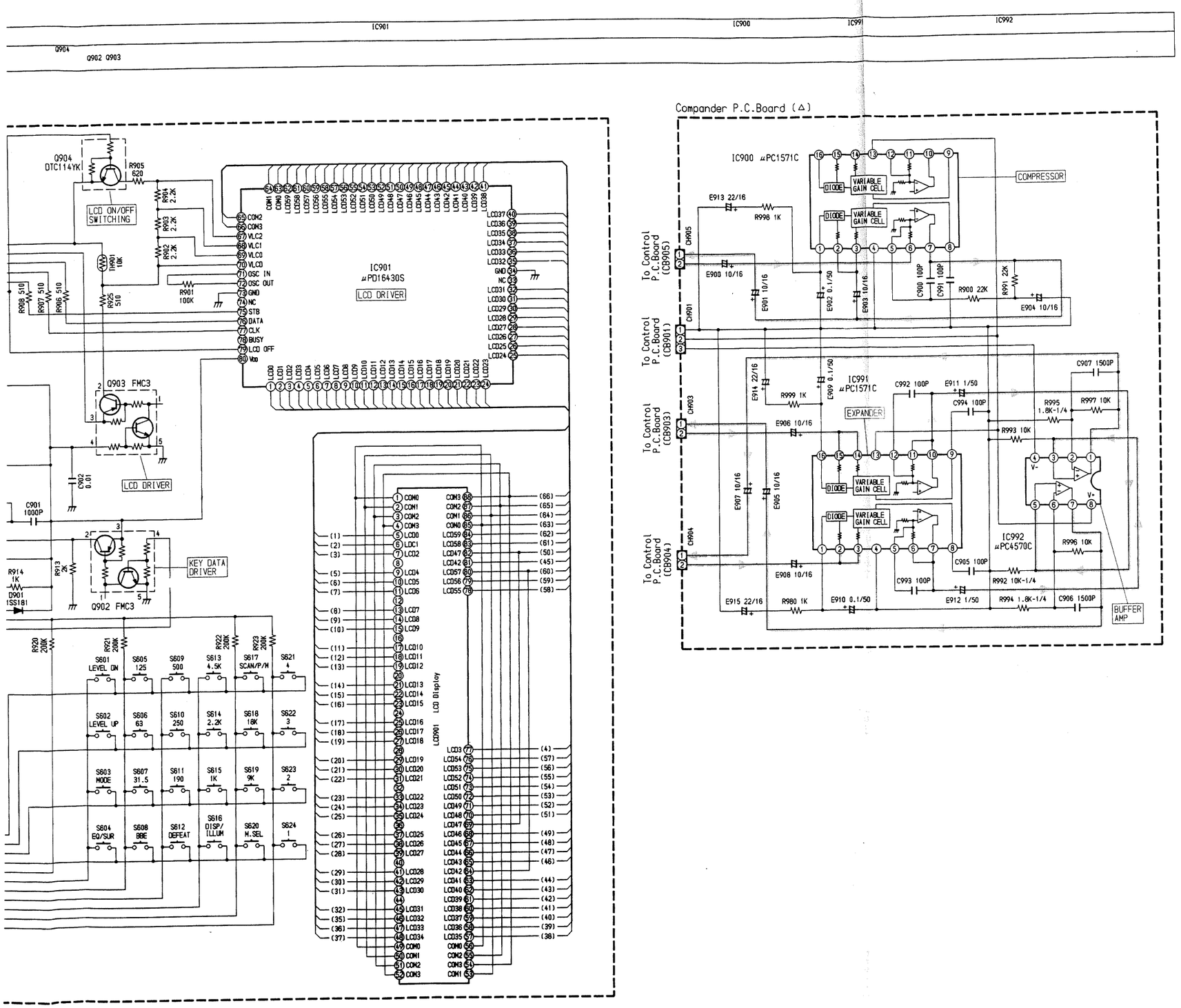
IC991 μPC1571C EXPANDER

E914 22/16 R999 1K E909 0.1/50 C992 100P E906 10/16 E907 10/16 E905 10/16

To Control P.C.Board (CB903) CH903

To Control P.C.Board (CB904) CH904

E908 10/16 C993 100P E915 22/16 R980 1K E910 0.1/50



	E	C	B
Q901	5V	7V	5.6V
Q904	0V	0.2V	5V

	1	2	3	4	5
Q902	NC	0V	5V	0V	0V
Q903	NC	7V	7V	5V	0V

IC901

1	3.4V	21	0V	41	0V	61	0V
2	3.4V	22	0V	42	0V	62	0V
3	0V	23	0V	43	0V	63	0V
4	0V	24	0V	44	0V	64	0V
5	0V	25	0V	45	0V	65	0V
6	0V	26	0V	46	0V	66	0V
7	0V	27	0V	47	0V	67	0.7V
8	0V	28	0V	48	0V	68	2.2V
9	0V	29	0V	49	0V	69	4.2V
10	0V	30	0V	50	0V	70	5.8V
11	0V	31	0V	51	0V	71	2.2V
12	0V	32	0V	52	0V	72	0V
13	0V	33	NC	53	0V	73	0V
14	0V	34	0V	54	0V	74	NC
15	0V	35	0V	55	0V	75	5V
16	0V	36	0V	56	0V	76	0V
17	0V	37	0V	57	0V	77	4.4V
18	0V	38	0V	58	0V	78	NC
19	0V	39	0V	59	0V	79	5V
20	0V	40	0V	60	0V	80	5V

△IC900

1	0.9V	9	NC
2	1.8V	10	NC
3	1.8V	11	NC
4	0V	12	NC
5	1.8V	13	8.5V
6	1.8V	14	NC
7	4.8V	15	NC
8	1.8V	16	NC

IC902

1	0V	9	NC
2	4.2V	10	NC
3	5V	11	NC
4	0V	12	0V
5	5V	13	5V
6	0V	14	NC
7	NC	15	NC
8	0V	16	5V

IC903

1	0V	11	NC
2	0V	12	NC
3	0V	13	2.3V
4	0V	14	2.3V
5	0V	15	2.3V
6	2.6V	16	2.3V
7	0V	17	2.3V
8	0V	18	2.3V
9	0V	19	2.3V
10	0V	20	2.3V

△IC991

1	0.8V	9	1.8V
2	1.8V	10	3.1V
3	1.8V	11	3.1V
4	1.8V	12	1.8V
5	1.8V	13	8.5V
6	3.1V	14	1.8V
7	3.1V	15	1.8V
8	1.8V	16	0.8V

△IC992

1	0V
2	0V
3	0V
4	-8.5V
5	0V
6	0V
7	0V
8	8.5V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
  Equalizer : Flat

NOTES :
1. All resistance values are in ohms. K=1,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

Notes : ○: For North American Model only, △: For General Foreign Model only,
Others : Common.

Electrical Parts List

Note : For the parts not mentioned, refer to the Service Manual for 3342 (68P52021W01).

Symbol No.	Part No.	Description
Audio P. C. Board		
IC		
IC301	51T55203W01	XRA1071
Transistors		
Q210	48T73888F12	CP., FMC2
Q801	48T83617F03	2SD1863
Q803	48E20938S01	2SB1243
Q807	48T83617F03	2SD1863
Q808	48T83418F01	2SB1241
Diodes		
D806	48E10101S01	11EQS04
D807	48E10101S01	11EQS04
D808	48E10101S01	11EQS04
Capacitors		
E001	23E20772S01	ELY., 10μF / 16V
E002	23E20772S01	ELY., 10μF / 16V
C003	08E09008S03	PF., 0.082μF
E003	23E20772S01	ELY., 10μF / 16V
C004	08E09008S03	PF., 0.082μF
E004	23E20772S01	ELY., 10μF / 16V
C005	08E09008S03	PF., 0.082μF
E005	23E20772S01	ELY., 10μF / 16V
C006	08E09008S03	PF., 0.082μF
E006	23E20772S01	ELY., 10μF / 16V
E007	23E20958S01	ELY., 22μF / 10V
E008	23E20958S01	ELY., 22μF / 10V
C009	08E09008S15	PF., 0.47μF
E009	23E20952S01	ELY., 47μF / 16V
C010	08E09008S15	PF., 0.47μF
E010	23E20952S01	ELY., 47μF / 16V
E103	23E20950S01	ELY., 1.5μF / 50V
E104	23E20950S01	ELY., 1.5μF / 50V
E105	23E20955S01	ELY., 0.33μF / 50V
E106	23E20948S01	ELY., 0.33μF / 50V
E107	23E20955S01	ELY., 0.33μF / 50V
E108	23E20955S01	ELY., 0.33μF / 50V
C109	08E09008S03	PF., 0.082μF
E109	23E20954S01	ELY., 0.22μF / 50V
C110	08E09008S03	PF., 0.082μF

Symbol No.	Part No.	Description
E110	23E20947S01	ELY., 0.22μF / 50V
C111	08E09008S03	PF., 0.082μF
E111	23E20945S01	ELY., 0.1μF / 50V
C112	08E09008S03	PF., 0.082μF
E112	23E20945S01	ELY., 0.1μF / 50V
C113	08E09008S14	PF., 0.047μF
E113	23E20946S01	ELY., 0.15μF / 50V
C114	08E09008S14	PF., 0.047μF
E114	23E20946S01	ELY., 0.15μF / 50V
E115	23E20772S01	ELY., 10μF / 16V
E203	23E20952S01	ELY., 47μF / 16V
E204	23E20952S01	ELY., 47μF / 16V
E205	23E20956S01	ELY., 10μF / 16V
E206	23E20956S01	ELY., 10μF / 16V
E214	23E20772S01	ELY., 10μF / 16V
E215	23E20772S01	ELY., 10μF / 16V
E216	23E20772S01	ELY., 10μF / 16V
E217	23E21376S01	ELY., 47μF / 16V
E218	23E20952S01	ELY., 47μF / 16V
E219	23E20952S01	ELY., 47μF / 16V
E220	23E20952S01	ELY., 47μF / 16V
E221	23E20952S01	ELY., 47μF / 16V
E222	23E20952S01	ELY., 47μF / 16V
E229	23E20952S01	ELY., 47μF / 16V
E230	23E20952S01	ELY., 47μF / 16V
E233	23E20772S01	ELY., 10μF / 16V
E234	23E20772S01	ELY., 10μF / 16V
E235	23E20957S01	ELY., 22μF / 16V
E236	23E20957S01	ELY., 22μF / 16V
E237	23E20957S01	ELY., 22μF / 16V
E238	23E20957S01	ELY., 22μF / 16V
E251	23E20772S01	ELY., 10μF / 16V
E252	23E20772S01	ELY., 10μF / 16V
E253	23E20772S01	ELY., 10μF / 16V
E254	23E20772S01	ELY., 10μF / 16V
E255	23E20772S01	ELY., 10μF / 16V
E256	23E20772S01	ELY., 10μF / 16V
E257	23E20772S01	ELY., 10μF / 16V
E302	23E20772S01	ELY., 10μF / 16V
E303	23E20953S01	ELY., 4.7μF / 25V
E304	23E20953S01	ELY., 4.7μF / 25V
E305	23E21375S01	ELY., 4.7μF / 25V
E306	23E21375S01	ELY., 4.7μF / 25V
E307	23E20772S01	ELY., 10μF / 16V
E308	23E20772S01	ELY., 10μF / 16V
E309	23E20953S01	ELY., 4.7μF / 25V
E310	23E20953S01	ELY., 4.7μF / 25V
E311	23E20949S01	ELY., 0.47μF / 50V
E312	23E20949S01	ELY., 0.47μF / 50V

Symbol No.	Part No.	Description
E313	23E20772S01	ELY., 10μF / 16V
E314	23E20772S01	ELY., 10μF / 16V
E315	23E20951S01	ELY., 3.3μF / 50V
E317	23E20772S01	ELY., 10μF / 16V
E318	23E20772S01	ELY., 10μF / 16V
E321	23E20772S01	ELY., 10μF / 16V
E322	23E20772S01	ELY., 10μF / 16V
E501	23E20944S01	ELY., 100μF / 16V
E502	23E20772S01	ELY., 10μF / 16V
E503	23E20944S01	ELY., 100μF / 16V
E802	23E20772S01	ELY., 10μF / 16V
E805	23E20943S01	ELY., 10μF / 50V
C810	08E09008S07	PF., 0.01μF
E817	23E20960S01	ELY., 1μF / 50V
E819	23E20772S01	ELY., 10μF / 16V

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R027	06E08433S29	100K ohm
R028	06E08433S29	100K ohm
R315	06E08433S28	47K ohm
R316	06E08433S28	47K ohm

Control P. C. Board

IC's

○ IC203	51E08399S01	μPD4570G2
IC601	51T55158W03	55158W03

Transistors

Q623	48T83617F03	2SD1863
Q624	48T83617F03	2SD1863
Q625	48T83617F03	2SD1863
○ Q626	48T62966F02	CP., DTA114EK
○ Q627	48E11357S01	CP., 2SC3326
○ Q628	48E11357S01	CP., 2SC3326
Q629	48T62967F03	CP., DTC124EK
Q637	48T94875F03	CP., DTB114EK
○ Q638	48T62967F06	CP., DTC114YK

Symbol No.	Part No.	Description
Diodes		
○ D203	48E07106S01	CP., 1SS184
○ D702	48T68829F01	1SS133
○ D703	48E07106S01	CP., 1SS184
ZD601	48E06975S01	Zener, RD12ESB3
○ ZD614	48T62934F32	Zener, CP. RD7.5MB3
Capacitors		
E201	23E20772S01	ELY., 10μF / 16V
E202	23E20772S01	ELY., 10μF / 16V
○ C203	21E08400S02	CP., 22pF
E207	23E20956S01	ELY., 10μF / 16V
E208	23E20961S01	ELY., 2.2μF / 50V
○ E209	23E20956S01	ELY., 10μF / 16V
○ E210	23E20958S01	ELY., 22μF / 10V
○ E211	23E21185S01	ELY., 22μF / 16V
○ E212	23E21185S01	ELY., 22μF / 16V
○ E213	23E20956S01	ELY., 10μF / 16V
E227	23E20772S01	ELY., 10μF / 16V
E228	23E20772S01	ELY., 10μF / 16V
E401	23E08793S05	ELY., 470μF / 16V
○ C403	21E08430S10	CP., 0.027μF
E403	23E20962S01	ELY., 470μF / 10V
E406	23E20772S01	ELY., 10μF / 16V
○ E409	23E20953S01	ELY., 4.7μF / 25V
E411	23E20959S01	ELY., 100μF / 10V
E413	23E20953S01	ELY., 4.7μF / 25V
E414	23E20953S01	ELY., 4.7μF / 25V
○ C431	21E08400S02	CP., 22pF
○ E431	23E20961S01	ELY., 2.2μF / 50V
○ C432	21E08400S02	CP., 22pF
○ E432	23E20961S01	ELY., 2.2μF / 50V
E433	23E20772S01	ELY., 10μF / 16V
E434	23E20772S01	ELY., 10μF / 16V
○ E435	23E20959S01	ELY., 100μF / 10V
E601	23E20772S01	ELY., 10μF / 16V
E604	23E20962S01	ELY., 470μF / 10V
E605	23E20772S01	ELY., 10μF / 16V
E606	23E20772S01	ELY., 10μF / 16V
E607	23E20956S01	ELY., 10μF / 16V
E608	23E20772S01	ELY., 10μF / 16V
E609	23E20963S01	ELY., 100μF / 16V
E701	23E20963S01	ELY., 100μF / 16V
E702	23E20772S01	ELY., 10μF / 16V
E703	23E20961S01	ELY., 2.2μF / 50V
E704	23E20772S01	ELY., 10μF / 16V
E705	23E20772S01	ELY., 10μF / 16V
E712	23E20963S01	ELY., 100μF / 16V

Notes : ○: For North American Model only, △: For General Foreign Model only,
Others : Common.

Electrical Parts List

Note : For the parts not mentioned, refer to the Service Manual for 3342 (68P52021W01).

Symbol No.	Part No.	Description
Audio P. C. Board		
IC		
IC301	51T55203W01	XRA1071
Transistors		
Q210	48T73888F12	CP., FMC2
Q801	48T83617F03	2SD1863
Q803	48E20938S01	2SB1243
Q807	48T83617F03	2SD1863
Q808	48T83418F01	2SB1241
Diodes		
D806	48E10101S01	11EQS04
D807	48E10101S01	11EQS04
D808	48E10101S01	11EQS04
Capacitors		
E001	23E20772S01	ELY., 10μF / 16V
E002	23E20772S01	ELY., 10μF / 16V
C003	08E09008S03	PF., 0.082μF
E003	23E20772S01	ELY., 10μF / 16V
C004	08E09008S03	PF., 0.082μF
E004	23E20772S01	ELY., 10μF / 16V
C005	08E09008S03	PF., 0.082μF
E005	23E20772S01	ELY., 10μF / 16V
C006	08E09008S03	PF., 0.082μF
E006	23E20772S01	ELY., 10μF / 16V
E007	23E20958S01	ELY., 22μF / 10V
E008	23E20958S01	ELY., 22μF / 10V
C009	08E09008S15	PF., 0.47μF
E009	23E20952S01	ELY., 47μF / 16V
C010	08E09008S15	PF., 0.47μF
E010	23E20952S01	ELY., 47μF / 16V
E103	23E20950S01	ELY., 1.5μF / 50V
E104	23E20950S01	ELY., 1.5μF / 50V
E105	23E20955S01	ELY., 0.33μF / 50V
E106	23E20948S01	ELY., 0.33μF / 50V
E107	23E20955S01	ELY., 0.33μF / 50V
E108	23E20955S01	ELY., 0.33μF / 50V
C109	08E09008S03	PF., 0.082μF
E109	23E20954S01	ELY., 0.22μF / 50V
C110	08E09008S03	PF., 0.082μF
E110	23E20947S01	ELY., 0.22μF / 50V
C111	08E09008S03	PF., 0.082μF
E111	23E20945S01	ELY., 0.1μF / 50V
C112	08E09008S03	PF., 0.082μF
E112	23E20945S01	ELY., 0.1μF / 50V
C113	08E09008S14	PF., 0.047μF
E113	23E20946S01	ELY., 0.15μF / 50V
C114	08E09008S14	PF., 0.047μF
E114	23E20946S01	ELY., 0.15μF / 50V
E115	23E20772S01	ELY., 10μF / 16V
E203	23E20952S01	ELY., 47μF / 16V
E204	23E20952S01	ELY., 47μF / 16V
E205	23E20956S01	ELY., 10μF / 16V
E206	23E20956S01	ELY., 10μF / 16V
E214	23E20772S01	ELY., 10μF / 16V
E215	23E20772S01	ELY., 10μF / 16V
E216	23E20772S01	ELY., 10μF / 16V
E217	23E21376S01	ELY., 47μF / 16V
E218	23E20952S01	ELY., 47μF / 16V
E219	23E20952S01	ELY., 47μF / 16V
E220	23E20952S01	ELY., 47μF / 16V
E221	23E20952S01	ELY., 47μF / 16V
E222	23E20952S01	ELY., 47μF / 16V
E229	23E20952S01	ELY., 47μF / 16V
E230	23E20952S01	ELY., 47μF / 16V
E233	23E20772S01	ELY., 10μF / 16V
E234	23E20772S01	ELY., 10μF / 16V
E235	23E20957S01	ELY., 22μF / 16V
E236	23E20957S01	ELY., 22μF / 16V
E237	23E20957S01	ELY., 22μF / 16V
E238	23E20957S01	ELY., 22μF / 16V
E251	23E20772S01	ELY., 10μF / 16V
E252	23E20772S01	ELY., 10μF / 16V
E253	23E20772S01	ELY., 10μF / 16V
E254	23E20772S01	ELY., 10μF / 16V
E255	23E20772S01	ELY., 10μF / 16V
E256	23E20772S01	ELY., 10μF / 16V
E257	23E20772S01	ELY., 10μF / 16V
E302	23E20772S01	ELY., 10μF / 16V
E303	23E20953S01	ELY., 4.7μF / 25V
E304	23E20953S01	ELY., 4.7μF / 25V
E305	23E21375S01	ELY., 4.7μF / 25V
E306	23E21375S01	ELY., 4.7μF / 25V
E307	23E20772S01	ELY., 10μF / 16V
E308	23E20772S01	ELY., 10μF / 16V
E309	23E20953S01	ELY., 4.7μF / 25V
E310	23E20953S01	ELY., 4.7μF / 25V
E311	23E20949S01	ELY., 0.47μF / 50V
E312	23E20949S01	ELY., 0.47μF / 50V

Symbol No.	Part No.	Description
E313	23E20772S01	ELY., 10μF / 16V
E314	23E20772S01	ELY., 10μF / 16V
E315	23E20951S01	ELY., 3.3μF / 50V
E317	23E20772S01	ELY., 10μF / 16V
E318	23E20772S01	ELY., 10μF / 16V
E321	23E20772S01	ELY., 10μF / 16V
E322	23E20772S01	ELY., 10μF / 16V
E501	23E20944S01	ELY., 100μF / 16V
E502	23E20772S01	ELY., 10μF / 16V
E503	23E20944S01	ELY., 100μF / 16V
E802	23E20772S01	ELY., 10μF / 16V
E805	23E20943S01	ELY., 10μF / 50V
C810	08E09008S07	PF., 0.01μF
E817	23E20960S01	ELY., 1μF / 50V
E819	23E20772S01	ELY., 10μF / 16V

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R027	06E08433S29	100K ohm
R028	06E08433S29	100K ohm
R315	06E08433S28	47K ohm
R316	06E08433S28	47K ohm

Control P. C. Board

IC's

○ IC203	51E08399S01	μPD4570G2
IC601	51T55158W03	55158W03

Transistors

Q623	48T83617F03	2SD1863
Q624	48T83617F03	2SD1863
Q625	48T83617F03	2SD1863
○ Q626	48T62966F02	CP., DTA114EK
○ Q627	48E11357S01	CP., 2SC3326
○ Q628	48E11357S01	CP., 2SC3326
Q629	48T62967F03	CP., DTC124EK
Q637	48T94875F03	CP., DTB114EK
○ Q638	48T62967F06	CP., DTC114YK

Symbol No.	Part No.	Description
Diodes		
○ D203	48E07106S01	CP., 1SS184
○ D702	48T68829F01	1SS133
○ D703	48E07106S01	CP., 1SS184
ZD601	48E06975S01	Zener, RD12ESB3
○ ZD614	48T62934F32	Zener, CP. RD7.5MB3
Capacitors		
E201	23E20772S01	ELY., 10μF / 16V
E202	23E20772S01	ELY., 10μF / 16V
○ C203	21E08400S02	CP., 22pF
E207	23E20956S01	ELY., 10μF / 16V
E208	23E20961S01	ELY., 2.2μF / 50V
○ E209	23E20956S01	ELY., 10μF / 16V
○ E210	23E20958S01	ELY., 22μF / 10V
○ E211	23E21185S01	ELY., 22μF / 16V
○ E212	23E21185S01	ELY., 22μF / 16V
○ E213	23E20956S01	ELY., 10μF / 16V
E227	23E20772S01	ELY., 10μF / 16V
E228	23E20772S01	ELY., 10μF / 16V
E401	23E08793S05	ELY., 470μF / 16V
○ C403	21E08430S10	CP., 0.027μF
E403	23E20962S01	ELY., 470μF / 10V
E406	23E20772S01	ELY., 10μF / 16V
○ E409	23E20953S01	ELY., 4.7μF / 25V
E411	23E20959S01	ELY., 100μF / 10V
E413	23E20953S01	ELY., 4.7μF / 25V
E414	23E20953S01	ELY., 4.7μF / 25V
○ C431	21E08400S02	CP., 22pF
○ E431	23E20961S01	ELY., 2.2μF / 50V
○ C432	21E08400S02	CP., 22pF
○ E432	23E20961S01	ELY., 2.2μF / 50V
E433	23E20772S01	ELY., 10μF / 16V
E434	23E20772S01	ELY., 10μF / 16V
○ E435	23E20959S01	ELY., 100μF / 10V
E601	23E20772S01	ELY., 10μF / 16V
E604	23E20962S01	ELY., 470μF / 10V
E605	23E20772S01	ELY., 10μF / 16V
E606	23E20772S01	ELY., 10μF / 16V
E607	23E20956S01	ELY., 10μF / 16V
E608	23E20772S01	ELY., 10μF / 16V
E609	23E20963S01	ELY., 100μF / 16V
E701	23E20963S01	ELY., 100μF / 16V
E702	23E20772S01	ELY., 10μF / 16V
E703	23E20961S01	ELY., 2.2μF / 50V
E704	23E20772S01	ELY., 10μF / 16V
E705	23E20772S01	ELY., 10μF / 16V
E712	23E20963S01	ELY., 100μF / 16V

Notes : ○: For North American Model only, △: For General Foreign Model only,
Others : Common.

Symbol No.	Part No.	Description
E713	23E20962S01	ELY., 470μF / 10V
E714	23E20963S01	ELY., 100μF / 16V
E715	23E20962S01	ELY., 470μF / 10V
E806	23E20772S01	ELY., 10μF / 16V

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

○	R201	06E08433S29	100K ohm
○	R205	06E08433S03	1K ohm
○	R206	06E08433S80	390K ohm
○	R207	06E08433S40	9.1K ohm
○	R209	06E08433S01	20 ohm
○	R210	06E08433S13	27K ohm
○	R211	06E08433S28	47K ohm
○	R212	06E08433S03	1K ohm
○	R215	06E08433S03	1K ohm
○	R217	06E08433S29	100K ohm
	R437	06E03968S01	100K ohm
○	R444	06E07452S01	100 ohm
○	R445	06E07452S01	100 ohm
○	R449	06E08433S52	4.3K ohm
○	R450	06E08433S10	10K ohm
○	R451	06E08433S52	4.3K ohm
○	R452	06E08433S10	10K ohm
○	R454	06E08433S10	10K ohm
○	R455	06E08433S16	2.4K ohm
△	R465	06E08433S54	820 ohm

Front P. C. Board

IC

	IC903	51T25674W02	μPD6121G

Switches

	S601	40E20314S01	Tact, SKHLBM (LEVEL DN)
	S602	40E20314S01	Tact, SKHLBM (LEVEL UP)
	S603	40E20314S01	Tact, SKHLBM (MODE)
	S604	40E20314S01	Tact, SKHLBM (EQ / SUR)
	S608	40E20314S01	Tact, SKHLBM (BBE)
	S616	40E20314S01	Tact, SKHLBM (DISP / ILLUM)
	S620	40E20314S01	Tact, SKHLBM (M. SEL)
	S621	40E20314S01	Tact, SKHLBM (4)
	S622	40E20314S01	Tact, SKHLBM (3)
	S623	40E20314S01	Tact, SKHLBM (2)
	S624	40E20314S01	Tact, SKHLBM (1)

Symbol No.	Part No.	Description

△ Compander P. C. Board

IC's

IC900	51T80831F01	μPC1571C
IC991	51T80831F01	μPC1571C
IC992	51T83403F01	μPC4570C

Capacitors

C900	21E07190S06	CP.,	100pF
E900	23E20956S01	ELY.,	10μF / 16V
E901	23E20956S01	ELY.,	10μF / 16V
E902	23E20964S01	ELY.,	0.1μF / 50V
E903	23E20956S01	ELY.,	10μF / 16V
E904	23E20956S01	ELY.,	10μF / 16V
C905	21E07190S06	CP.,	100pF
E905	23E20956S01	ELY.,	10μF / 16V
C906	21E07122S01	CP.,	1500pF
E906	23E20956S01	ELY.,	10μF / 16V
C907	21E07122S01	CP.,	1500pF
E907	23E20956S01	ELY.,	10μF / 16V
E908	23E20956S01	ELY.,	10μF / 16V
E909	23E20964S01	ELY.,	0.1μF / 50V
E910	23E20964S01	ELY.,	0.1μF / 50V
E911	23E21377S01	ELY.,	1μF / 50V
E912	23E21377S01	ELY.,	1μF / 50V
E913	23E20957S01	ELY.,	22μF / 16V
E914	23E20957S01	ELY.,	22μF / 16V
E915	23E20957S01	ELY.,	22μF / 16V
C991	21E07190S06	CP.,	100pF
C992	21E07190S06	CP.,	100pF
C993	21E07190S06	CP.,	100pF
C994	08E20967S01	CP.,	100pF

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R900	06E08433S12	22K ohm	
R980	06E08433S03	1K ohm	
R991	06E08433S12	22K ohm	
R992	06E20126S01	10K ohm	1/4W
R993	06E08433S10	10K ohm	
R994	06E07326S09	1.8K ohm	1/4W
R995	06E07326S09	1.8K ohm	1/4W
R996	06E08433S10	10K ohm	
R997	06E08433S10	10K ohm	
R998	06E08433S03	1K ohm	
R999	06E08433S03	1K ohm	

Notes : ○: For North American Model only, △: For General Foreign Model only,
Others : Common.